SAFETY DEVICES ON HOUSEHOLD REFRIGERATORS

HEARINGS

BEFORE A

SUBCOMMITTEE OF THE COMMITTEE ON INTERSTATE AND FOREIGN COMMERCE HOUSE OF REPRESENTATIVES

EIGHTY-FOURTH CONGRESS

FIRST SESSION

ON

H. R. 2181

A BILL TO REQUIRE SAFETY-CLOSING DEVICES ON THE DOORS OF HOUSEHOLD REFRIGERATORS SHIPPED IN INTERSTATE COMMERCE

JULY 20 AND 21, 1955

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SAFETY DEVICES ON HOUSEHOLD REFRIGERATORS

WEDNESDAY, JULY 20, 1955

HOUSE OF REPRESENTATIVES,
SPECIAL SUBCOMMITTEE OF THE COMMITTEE
ON INTERSTATE AND FOREIGN COMMERCE,
Washington, D. C.

The subcommittee met at 10 a. m., pursuant to notice, in room 414 of the House Office Building, Hon. F. Ertel Carlyle (chairman of the special subcommittee) presiding.

Present: Representatives Carlyle, Roberts, Mack, Dies, and Heselton.

Mr. CARLYLE. The subcommittee will be in order.

This special subcommittee on H. R. 2181 is meeting this morning to hold public hearings on the bill introduced by our colleague, Hon. Kenneth A. Roberts, of Alabama. H. R. 2181 would require safety closing devices on the doors of the household refrigerators shipped in interstate commerce. The legislation would require that such refrigerators be equipped with a door-closing device which would enable the door to be opened easily from the inside of the refrigerator.

At this point in the record we will incorporate a copy of the bill, H. R. 2181.

(The bill, H. R. 2181 is as follows:)

[H. R. 2181, 84th Cong., 1st sess.]

A BILL To require safety closing devices on the doors of household refrigerators shipped in interstate commerce

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That it shall be unlawful for any person to introduce or deliver for introduction into interstate commerce any household refrigerator unless the door of such refrigerator is equipped with a door-closing device which enables the door to be opened easily from inside the refrigerator.

SEC. 2. Any person who violates the provisions of the first section of this Act shall be guilty of a misdemeanor and shall upon conviction thereof be subject to imprisonment for not more than one year, or a fine of not more than $1,000, or both.

SEC. 3. As used in this Act, the term "interstate commerce" includes commerce between one State, Territory, possession, or the District of Columbia, and another State, Territory, possession, or the District of Columbia.

SEC. 4. This Act shall become effective six months after the date of its enactment.

Mr. CARLYLE. Our first witness this morning will be the author of the bill, Congressman Roberts. Before hearing Congressman Roberts, there is a letter addressed to the chairman of our full committee, Congressman Priest, from the Interstate Commerce Commission in which certain amendments have been suggested.

There is a letter addressed to Mr. Priest, our chairman, from the Secretary of Commerce, Mr. Weeks, in which he has given his thoughts

relating to this subject and which report from him is adverse. Without objection I would like to have that made a part of the record.

We have a letter addressed to Congressman Priest, the chairman, from the Bureau of the Budget, and this report is adverse, and I would like to have that made a part of the record.

We have a letter from the Department of Justice, signed by Mr. William P. Rogers, Deputy Attorney General, in which he has given his thoughts on this legislation. He makes no recommendation. I should like for that to be a part of the record without objection.

(The documents referred to are as follows:)

INTERSTATE COMMERCE COMMISSION,
Washington, February 17, 1955.

Hon. J. PERCY PRIEST,
Chairman, Committee on Interstate and Foreign Commerce,
House of Representatives, Washington, D. C.

DEAR CHAIRMAN PRIEST: Your letter of February 5, 1955, addressed to the Chairman of the Commission and requesting comments on a bill, H. R. 2181, introduced by Congressman Roberts, to require safety closing devices on the doors of household refrigerators shipped in interstate commerce, has been referred to our Committee on Legislation and Rules. After careful consideration by that Committee, I am authorized to submit the following comments in its behalf:

This bill would make it unlawful for any person "to introduce or deliver for introduction into interstate commerce" any household refrigerator not equipped with a door-closing device which enables it to be opened from the inside.

The broad objective of the bill is not related to the jurisdiction of the Interstate Commerce Commission, and for that reason we are not in a position to express an opinion with respect to its merits. Our interest in a measure of this kind extends only to its possible effect on agencies of transportation subject to our regulatory powers.

Since the prohibition of the bill would apply only to the introduction or delivery for introduction into interstate commerce of such refrigerators, and would not cover the receipt and transportation thereof, it is presumed that the bill is not intended to be applicable to carriers subject to the Interstate Commerce Act, which are usually specifically exempted in such measures. We believe, however, that under certain circumstances interstate carriers might be considered as coming within the bill's prohibition. We suggest, therefore, that a new provision be added, either as a proviso at the end of the first section or as a new section, providing that the act shall not apply to any common carrier, contract carrier, or freight forwarder with respect to any such household refrigerator introduced or delivered for introduction in interstate commerce in the ordinary course of business.

Respectfully submitted.

RICHARD F. MITCHELL, *Chairman.*
HOWARD G. FREAS,
KENNETH H. TUGGLE,
Committee on Legislation and Rules.

THE SECRETARY OF COMMERCE,
Washington, July 18, 1955.

Hon. J. PERCY PRIEST,
Chairman, Committee on Interstate and Foreign Commerce,
House of Representatives, Washington, D. C.

DEAR MR. CHAIRMAN: This is in reply to your letter dated February 5, 1955, requesting the views of this Department with respect to H. R. 2181, a bill to require safety closing devices on the doors of household refrigerators shipped in interstate commerce.

We recommend against enactment of this bill.

This bill is similar in purpose to S. 2876 and S. 2891 of the 83d Congress, which were the subject of hearings before a subcommittee of the Senate Committee on Interstate and Foreign Commerce during the preceding session. As a result of those hearings Senate Resolution 272 was introduced, which contained findings, inter alia, that the hearings failed to establish the existence of a device which

would provide a proper seal for a modern refrigerator door and which would also allow the door to be opened easily by a small child. It was concluded that it would seem wise for Congress to await the invention of such a device before enacting legislation on the subject. This resolution was adopted by the Senate on July 7, 1954.

We know of no change in the state of the art which would warrant a different conclusion from that contained in Senate Resolution 272.

In addition, we believe the bill, if enacted into law, would give rise to certain other problems. For example, household refrigerators are not defined, and might or might not be taken to include home freezers to which they bear a resemblance. The problem of providing adequate closures for freezers and refrigerators appear to be somewhat different, and there seems to be no assurance that a safety device, if developed, which would perform satisfactorily on refrigerators would do the same for freezers. In view of the fact that freezers represent a comparable hazard to small children we think it would be unfortunate if an impression were created that all new appliances of this general class were equipped with safety devices. On the other hand, in view of the existence of the mechanical problem we would also consider it unsatisfactory if a conclusion were reached that the two types of appliances were both subject to the bill.

We have been advised by the Bureau of the Budget that it would interpose no objection to the submission of this letter.

Sincerely yours,

SINCLAIR WEEKS,
Secretary of Agriculture.

EXECUTIVE OFFICE OF THE PRESIDENT,
BUREAU OF THE BUDGET,
Washington, D. C., February 23, 1955.

Hon. J. PERCY PRIEST,
Chairman, Committee on Interstate and Foreign Commerce,
House of Representatives, Washington, D. C.

MY DEAR MR. CHAIRMAN: This will acknowledge your letter of February 5, 1955, requesting the views of this office with respect to H. R. 2181, a bill to require safety closing devices on the doors of household refrigerators shipped in interstate commerce.

The Bureau of the Budget believes that improvement of safety closing devices on the doors of household refrigerators could be handled adequately without Federal legislation. As for abandoned refrigerators, local police action can effectively handle the problem. The Bureau, therefore, recommends against enactment of H. R. 2181.

Sincerely yours,

HAROLD PEARSON,
Assistant Director.

DEPARTMENT OF JUSTICE,
OFFICE OF THE DEPUTY ATTORNEY GENERAL,
Washington, March 2, 1955.

Hon. J. PERCY PRIEST,
Chairman, Committee on Interstate and Foreign Commerce,
House of Representatives, Washington, D. C.

DEAR MR. CHAIRMAN: This is in response to your request for the views of the Department of Justice concerning the bill (H. R. 2181) to require safety closing devices on the doors of household refrigerators shipped in interstate commerce.

The bill would make it unlawful to introduce or deliver for introduction into interstate commerce any household refrigerator unless the door of such refrigerator is equipped with a door-closing device enabling it to be opened from the inside. Violations of the measure would be punishable by imprisonment for not more than 1 year or fine of not more than $1,000, or both.

Whether the bill should be enacted involves a question of policy concerning which this Department prefers to make no recommendation. It is believed, however, that the bill should be clarified in certain respects.

There would appear to be some question as to the advisability of using the term "door-closing device" since such a device ordinarily relates to the closing of a door, rather than to a safety device on the inside which would enable the door to be easily opened. It would seem preferable to use the term "latch" or "inside latch."

Also, it is suggested that the bill should contain a definition of the term "household refrigerator."

The Bureau of the Budget has advised that there would be no objection to the submission of this report.

Sincerely,

WILLIAM P. ROGERS,
Deputy Attorney General.

Mr. CARLYLE. Now, Mr. Roberts, would you proceed, please?

STATEMENT OF HON. KENNETH A. ROBERTS, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF ALABAMA

Mr. ROBERTS. Mr. Chairman, the way to avoid deathtraps is not to manufacture them. That is the intent of my bill, H. R. 2181, about which I have the privilege of testifying before this committee this morning.

If this legislation, H. R. 2181, were enacted, it would require that inside devices be placed on the doors of household refrigerators shipped in interstate commerce. If such a safety device were required by law, it is probable that it would greatly decrease, if not eliminate, the number of tragic children's deaths we see reported in the newspapers with alarming increasing frequency.

In 1952 icebox deaths totaled 14. In 1953, the records show that 26 children, led on by their own curiosity, suddenly found themselves inextricably locked inside a refrigerator and suffocated to death before being discovered. With the number of such deaths increasing each year, it seems imperative to me that Congress should give this growing problem its serious study and enact legislation within its proper jurisdiction to eliminate these children's deaths insofar as possible.

Mr. Chairman, I understand that there has been some opposition expressed to H. R. 2181 because it is said that most of the tragic accidents we read about have occurred in abandoned iceboxes. In my opinion, that does not lessen the urgency of this legislation. I might say also that recently in Detroit we had a case where a child was suffocated in a refrigerator and the mother was in the act of having it defrosted, while the mother was in another part of the apartment. So the problem is not confined simply to abandoned boxes.

Fifteen years from now, which I believe is the expected lifespan of an icebox, the boxes we manufacture today will be the coffins of tomorrow. We should not fail to act today just because the effect of the legislation cannot be immediate. An abandoned refrigerator with no inside escape mechanism will be a waiting coffin 15 years from now for some innocent child. We cannot, in all good conscience, resign ourselves to being fatalists about this situation when it is possible for us to act.

I heartily endorse the statements made by different refrigerator trade organizations which I have read wherein these organizations encourage greater publicity campaigns to make parents alert to these icebox deathtraps. I greatly favor telling the people again and again about the hazards of abandoned iceboxes but I do not believe that publicity of this type, helpful though it may be, is sufficient to meet this problem. According to testimony received by the Senate Committee on Interstate and Foreign Commerce, during the last session of Congress, such publicity campaign programs have been underway

by some organizations for several years yet still the number of such needless deaths continues to rise.

On the occasion of each death, there is generally a great deal of publicity, but people quickly forget and the refrigerators are still there waiting. A glaring example of how quickly the people may read and forget is illustrated by the fact that Life magazine, in its December 14, 1953, issue carried an impressive story on icebox tragedies and it told how the two California cities of Sacramento and Burbank waged campaigns to have citizens destroy abandoned iceboxes. Yet, tragically enough, only 2 months later on February 16, 1954, the neighboring city of Madera, Calif., reported the deaths of 2 children, one 3 years old and the other only 19 months old, who had suffocated—

in an icebox abandoned illegally behind their rural Madera home.

Mr. Chairman, this deathtrap should never have been manufactured.

I believe in making an all-out effort to have municipalities and counties pass ordinances to forbid the abandonment of old iceboxes but I do not believe that this should preclude our acting in a matter in which we clearly have jurisdiction, to prohibit the interstate movement of what we know may become the coffin of an innocent child. As you can see from the news story above, the Madera City ordinance was not sufficient to save the lives of those two little girls.

On May 18, 1955, a landlord in East St. Louis, Mo., was discovered guilty of violating an ordinance requiring that the doors be removed from unused iceboxes that are accessible to children. And why was the landlord discovered guilty of this ordinance? Because 2 happy, playful children, both age 3, were discovered suffocated to death in his icebox. The icebox had been placed in a closed shed while apartments were being redecorated. Unfortunately, the children had entered the shed, after removing a loose board. Mr. Chairman, the shed was closed and here too, the city had enacted its ordinance. The only way to have avoided this accident was for this death-trap refrigerator never to have been manufactured.

The city ordinances and publicity campaigns are excellent to have and to continue, but they alone cannot save the lives of our children. We can save lives by enacting H. R. 2181. If we enact H. R. 2181, the manufacturers of refrigerators will not forget to include an inside safety device when manufacturing refrigerators for the future. Some people may continue to forget safety precautions, but innocent children can be protected indefinitely by our congressional action.

Mr. Chairman, I am not concerned about what the exact mechanical device should be, other than it be effective and usable by a small child. Since the introduction of my bill, several devices have come to my attention which would remove the hazard of unused refrigerators as death traps. One such device would make it impossible to close the door once the shelves had been removed. Another would lock the refrigerator closed, so no one could enter it, once the electricity was cut off. Still another is a magnetic device which allows the door to be opened both inside and out with the exertion of very little energy.

I also understand that the inventive Mrs. Richard Rodgers, wife of the famous composer of the team of Rodgers and Hammerstein, and the inventor of the Johnny Mop, has invented an emergency release

that its presently being patented. Her invention unlatches a refrigerator door when the slightest pressure is put upon the inside of the door.

Mrs. Rodgers also has this to say with respect to only old, abandoned iceboxes assuming the role of the suffocating coffin:

> They say that most of these accidents happened with discarded refrigerators that children found in junkyards. But it happens in plenty of homes too. The lawyer who drew up the patent papers for me has a little boy who got into the refrigerator in their kitchen one day when his mother's back was turned. He wanted to see how his flashlight worked in the dark. Luckily his mother found him in there after the door had been closed for only a few minutes.

Mr. Chairman, I was shocked to read the adverse report filed by the Department of Commerce on H. R. 2181 in which the Department generally stated that no effective device is known which would make refrigerator doors usable from both the inside and outside. I have just mentioned the inventions which have come to my attention. Should none of these prove satisfactory, once tested, however, I do believe that a satisfactory safety device can be invented and manufactured at a reasonable price. It is inconceivable to me that the great scientific knowledge and inventive genius of this country of ours which developed the H-bomb capable of completely destroying South Pacific islands cannot also develop a simple, relatively inexpensive lock on a refrigerator door which can be opened from the inside by the pressure of a little hand.

Mr. Chairman, I urge this committee to act favorably upon H. R. 2181 so that we may, in some way, contribute to saving the lives of innocent children.

Now I might mention the fact that recently the sovereign State of Tennessee adopted a law which prohibits the sale of refrigerators in the State of Tennessee unless they are equipped with a safety device. I have a copy of that law, and I would like to ask unanimous consent that I may include the law in my statement.

Mr. CARLYLE. Without objection, that may be done.

(The law referred to is as follows:)

PUBLIC CHAPTER No. 240

HOUSE BILL NO. 284

By Ben Routon

AN ACT To require all new iceboxes and/or refrigerators or other airtight or semitight containers which have a capacity of 1½ cubic feet or more, and an opening of 50 square inches or more, and which has a door or lid equipped with a latch or fastening devices capable securing such door or lid shut, which are offered for retail, to be equipped with a safety device which will open the door or provide a means of escape from the interior and to provide penalty for violation thereof

SECTION 1. *Be it enacted by the General Assembly of the State of Tennessee,* That all new iceboxes and/or refrigerators of other airtight or semitight container, which has a capacity of 1½ cubic feet or more and an opening of 50 square inches or more, and which has a door or lid equipped with a latch or other fastening device capable of securing such door or lid shut, sold in this State shall be equipped with a safety device located in the lower half of the front panel and/or door which may be readily operated from within the container and which will open the door or release the panel as a means of escape.

SEC. 2. *Be it further enacted,* That violation of this Act shall be a misdemeanor by a fine of not more than $200 or imprisonment of not more than 30 days or both fine and imprisonment in the discretion of the Court, and each act done in violation thereof and each day that such violation continues shall constitute a separate offense and be punishable as such.

SEC. 3. *Be it further enacted*, That this Act shall take effect twenty-four (24) months from and after its pasage, the public welfare requiring it.

Passed: March 16, 1955.

JAMES L. BOMAR,
Speaker of the House of Representatives.
JARED MADDUX,
Speaker of the Senate.

Approved: March 21, 1955.

FRANK G. CLEMENT, *Governor.*

Mr. DIES. I would like to ask Mr. Roberts what appears to be the easiest, and simplest, and most economical safety device. Some people think that there is a device so simple that a child could be protected. Is there such a device?

Mr. ROBERTS. For my part, I am convinced that the one we will demonstrate today has considerable merit, and I also know that one of the outstanding manufacturers in the country has manufactured such a device, and I think it would be rather expensive at this time for the general public to buy that box. But they have made them with magnetic devices, and they are in production at this time.

Mr. DIES. I am under the impression, although I would not want to make any absolute statement about it, that these unfortunate deaths which have occurred are in two classes of cases.

One is where a child gets in a big icebox, one of these commercial iceboxes that has been abandoned.

The other is the very small child that gets in a home refrigerator. What I was thinking about was this: Is it possible to have a device that a very small child who crawls into a refrigerator would know how to use and would be intelligent enough to take advantage of?

Mr. ROBERTS. Of course that is undoubtedly a problem. Most of these news items that I have read, or a good many of them, seem to indicate that there is a frantic struggle on the part of the child to get out of that thing.

In other words, in a lot of cases I read they would tear their fingernails off trying to open the door.

We feel that a device with a small amount of pressure that a child would exert, is what we are looking for. In that struggle to free themselves, and escape, if this device is placed near enough to the bottom of the box they are bound to put it into operation.

Mr. DIES. Would that be reasonably economical? Of course the matter of cost enters into this naturally.

Mr. ROBERTS. I do not have any figures, but I have been told that such a device is available. There is a man here in Washington, and I do not have his name, but I believe Mr. Funk, has an electrical device, and I think he said it could be manufactured for around $15, and I think perhaps there is a magnetic device that I have been told can be manufactured for a maximum of about $5 and a minimum of $2.50. Then the mechanical device I understand would be much cheaper than that. There is a mechanical device that will be demonstrated here today.

Mr. CARLYLE. Are there any questions?

Mr. HESELTON. I want to follow Mr. Dies' question briefly if I can.

Is there any device known to you by which a small child, as Mr. Dies mentioned, by stepping into a refrigerator would automatically unlatch the door, that is, the weight of the child itself on the floor?

Mr. ROBERTS. I do not believe I have seen any such device as that. Those I have seen usually fit into the door's mechanism. I do not know if there is any development along that line or not.

Mr. HESELTON. Then there is another question that came to my mind. When did this matter of tragic deaths first come to your attention?

Mr. ROBERTS. Well I have been interested in the proposition as a matter of fact almost since I came to Congress. We have had some deaths not in my district but two in the adjoining districts to mine and I have had some correspondence with people who are interested in this.

Mr. HESELTON. For the record, that would be over a period of how many years approximately?

Mr. ROBERTS. I would say the last 3 or 4 years.

Mr. HESELTON. Has your own research or what has come to you indicated when the earliest cases of this kind arose?

Mr. ROBERTS. I have brief here that might answer that, if I can lay my hands on it.

Mr. HESELTON. Perhaps if you would furnish that information for the record, I think we might establish definitely when this originated and in terms of what has been done. Will you do that?

Mr. ROBERTS. I will be glad to supply the information for the record.

(The information referred to is as follows:)

I have no figures prior to 1952, but I am advised by the National Safety Council there were 26 deaths in 1953 which reached almost figures of epidemic proportions. The figures prior to 1952 do not appear to be available because of the lack of interest according to the National Safety Council.

Mr. HESELTON. To your knowledge have the States or local communities been able to develop anything in the way of law or ordinances that seem to effectively take care of this problem?

Mr. ROBERTS. I think the majority of the States have passed these safety laws and I would say probably a majority of the municipalities have but they do not seem to stop the deaths. After a death, people will get quite interested in safety campaigns, and I think they are fine, but I just do not think it answers the problem.

Mr. HESELTON. Is it possible that one answer is that they are scattered all over the country and it arouses attention in one spot, and then something happens in another section and people there are interested in it naturally but there is never any concentration of information?

Mr. ROBERTS. I do not think that there has been any concentration. Several of the national magazines have had articles at various times to point up the dangers. It is a pretty hard thing to handle that way. They take a lot of doors off, and destroy a lot of abandoned refrigerators, and undoubtedly save some lives that way. But I do not think it is the complete answer to the problem.

Mr. HESELTON. As I understand it, this would only apply to the interstate shipment of refrigerators?

In other words, Congress cannot reach the problem of existing refrigerators?

Mr. ROBERTS. No; that would seem to be a State problem. I think it would be an infringement on the jurisdiction of the States if we tried to go that far.

Mr. HESELTON. I notice in the Secretary of Commerce's letter to Chairman Priest, he calls attention to the Senate action after a report and hearing, and the findings that it would seem wise for Congress to await the invention of such a device before enacting legislation on the subject. That resolution was adopted over a year ago. Has there been to your knowledge any further development as far as inventions are concerned?

Mr. ROBERTS. Well, I think that the trade—and I will say this in fairness to the manufacturers, I think they have continued their research in trying to solve this problem. As far as I know, other than the devices, one of which will be demonstrated here today, I do not know of anything other than the manufacturer I mentioned, GE, who is now building a type of refrigerator with what they call their closure device, and I think I can supply for the record some pictures of that type.

Mr. HESELTON. I think it would be useful for the committee to have those pictures at hand in filing our report.

You have seen the Secretary of Commerce's comment on distinguishing so far as your bill was concerned between refrigerators and freezers. Do you believe that is a valid comment?

Mr. ROBERTS. I would say this about that report: I do not know if this will answer your question or not but they have more or less shifted their position. Last year when they submitted a report I believe on the Senate bill, they took the position that no effective device had been discovered or invented. This time they seem to take the position that the problem is more or less one of abandoned iceboxes, and not the box that is in use.

But I have an article here from the Detroit Free Press which shows that that is not the problem at all. Here is where a child died inside a refrigerator that was in use and the mother was defrosting, and she even propped the door open. Knowing how attractive "places to hide" are to children, they get into those things. I do not think that their ground of objection is completely sound.

Mr. HESELTON. I am sure that you have in mind the doctrine of "attractive nuisance." I wonder if any lawyer has attempted to establish liability under that doctrine. That covers abandoned wells and all of that sort of thing.

Mr. ROBERTS. I believe there is a suit pending, and it seems to me that I have noticed in one of the articles that there is a suit pending against a landlord on that theory. I do not know what the facts are. I think that there would be sound legal contention that it is an attractive nuisance.

Mr. HESELTON. The Interstate Commerce Commission makes a brief comment in terms of the usual proviso, affecting the freight forwarder if we should see fit to recommend that legislation. Do you believe that is a sound recommendation?

Mr. ROBERTS. I have not seen that until this morning, and I would not want to pass on that right at this time.

Mr. HESELTON. Perhaps you would be willing to look it over and add to your remarks in the record?

Mr. ROBERTS. I will be glad to do that.

(Mr. Roberts later submitted the following statement:)

I am in accord with letter dated February 17, 1955, from chairman, Committee on Legislation and Rules of the Interstate Commerce Commission,

that the bill would not cover the receipt and transportation thereof, but would only apply to the introduction or delivery for introduction into interstate commerce of such refrigerators.

Mr. HESELTON. There is also a brief comment by Mr. Rogers, of the Department of Justice, that a matter of inside latch is a matter of definition. Those are all technical matters.

Thank you very much, Mr. Chairman, and Mr. Roberts.

Mr. CARLYLE. Mr. Roberts, you made a very complete and definite statement and I am wondering if you could tell me what percent of the casualties that had come to your attention in the past several years were caused by the old-fashioned icebox, as contrasted with the electrical refrigerator?

Mr. ROBERTS. I have not made that study. I would say generally speaking, that the great majority of these deaths are caused by abandoned iceboxes. However, I think that simply because we may not be effective until 15 years hence is no reason why we should not try to solve this problem at the present time.

Mr. CARLYLE. I think that that is true. Now, do you have any other statement that you would like to add?

Mr. ROBERTS. I have several selected items, editorials and newspaper articles, and I do not want to burden the record, but I would like to ask unanimous consent that I be permitted to put into the record some of these selected articles, and I will try not to burden the hearings with too many of them.

Mr. CARLYLE. Is there any objection? If there is no objection, that will be done.

(The articles referred to are as follows:)

[From the Anniston (Ala.) Star, March 11, 1955]

TRAGEDY IN CLEBURNE COUNTY—TINY BROTHER AND SISTER DIE TRAPPED IN OLD REFRIGERATOR

(By Cody Hall)

A 6-year-old Cleburne County girl and her brother, 4, suffocated yesterday when the door of a discarded refrigerator slammed, trapping them inside.

The bodies of Gwendolyn and Don Balenger were found by their mother who remarked to friends aiding in a search for the children:

"I know they can't be in here but I'll look."

DEATH WAS QUICK

The children were rushed to a Bowdon, Ga., hospital where they were pronounced dead on arrival. A doctor said death apparently had come within a matter of minutes after the door closed.

Parents of the children are Mr. and Mrs. Redge Balenger of near Ranburne.

Mrs. Balenger was quilting at the home of Mrs. Merman Pollard and the children, with a 2-year-old sister, Lavonne, were playing outside. Mr. Balenger was off digging a well at the time.

Gwenda and Don were missed about 3:30 o'clock and a search was started. The refrigerator where their bodies were found was in a workshop at the Pollard home.

FUNERAL RITES TOMORROW

The bodies were removed by Mr. Pollard and Mrs. Balenger's father, Jesse M. Otwell, who answered her cries after she discovered the children.

Survivors include another sister, Mrs. Floyce Whitman of Anniston, and a brother, Troy.

Funeral services are to be held Saturday, details to be announced by a Bowdon funeral home.

[From the Los Angeles Evening Herald Express, April 16, 1955]

NEW CALIFORNIA LAW FACES TEST IN TWO TOTS' ICEBOX DEATHS—
CORONER TO PROBE CHILD TRAGEDY

Death of two young boys who crawled into an abandoned icebox will be investigated next week at a coroner's inquest, it was disclosed today, and authorities asked a ruling by the county counsel on whether the owner of the icebox can be held liable.

The victims were Albert Arebalo, 8, of 2037 East 76th Place, and David Anthony Fennessy, 3, of 2033 East 76th Place, who were found in the icebox stored in a shed behind 7611 Lou Dillon Avenue.

J. Gordon Bowers, chief of the crime-prevention bureau, said the legal ruling will be sought early next week to determine whether the State law against abandoning iceboxes without padlocking them or removing the doors applies in this case. The law, enacted last year, after more than 100 children throughout the country lost their lives in abandoned iceboxes, provides a maximum penalty of a $500 fine or 6 months in jail.

NOT IN OPEN

Bowers pointed out that the law specified boxes left in the open, while the latest case involves one left in a shed.

Bowers said his investigators were convinced the deaths were accidental, although at first they were puzzled by the fact the two boys were tightly wedged in, yet managed to slam the door.

He pointed out, however, that in such cases the victims "appear to be wedged in because they squirm around in panic."

Albert and David had left their respective homes about 3 p. m. yesterday. When they had not returned for supper at 6 o'clock, their parents called the Firestone sheriff's station, and deputies launched a house-to-house canvass.

More than 100 children joined in the search of the neighborhood. At 9:10 p. m. the icebox was sighted in the shed by Dennis O'Neal, 12, of 2012 East 76th Place, and Ronald Vierling, 14, of 2019 East 74th Street. When it was opened to reveal the tragic secret, county rescue unit 9 was summoned to bring an inhalator, but it was much too late.

DEAD FIVE HOURS

Fireman R. F. Britton calculated death had beaten him by 5 hours.

John Richardson, owner of the property where the box was stored, said he had put it in the shed 6 months ago; that he did not know about the State law requiring all such containers when abandoned to have their doors removed or securely padlocked. The legislation was enacted last year, after more than 100 children had been suffocated in old iceboxes throughout the country.

Little David Fennessy was the only son of Frank Fennessy, 24, and his wife, Mary, also 24, who is expecting another child.

Albert Arebalo's mother, Mrs. Raymond Arebalo, 6, is also an expectant mother. Albert was her only child.

What, if any, action will be taken against the icebox owner was to be determined late today or Monday.

[From the Selma (Ala.) Times Journal, March 13, 1955]

MORE ICEBOX DEATHS

The toll from a recent series of childhood tragedies caused by abandoned iceboxes has been increased by the deaths of a 6-year-old girl and her 4-year-old brother at their home in a small Alabama community near the Georgia line.

The pattern of this tragedy followed that of many others in that the two children, playing without close parental supervision, ventured into the icebox and were trapped to smother in darkness.

As it has been evidenced repeatedly that abandoned iceboxes appear to exert a strong fascination upon playing children, it would seem that public education to this peril should be sufficient by now to induce precautions against such death-traps, many of which still are standing about in places accessible to youngsters.

The situation also should serve to place new emphasis upon the importance of legislation sponsored by Fourth District Representative Kenneth Roberts requiring that all iceboxes sold in interstate trade be equipped with inside

latches of such type that children trapped inside almost automatically would free themselves by frantic struggles to escape.

The main weakness of this legislation is the fact that it would require a long period of time after enactment before effects would become evident. In the meantime, existing deathtraps remain to lure unwary youngsters.

All of these should be eliminated speedily or stored where they cannot claim the lives of venturesome children.

[From the New York Times, August 14, 1953]

NINE CHILDREN KILLED IN TWO ICEBOX TRAPS

RICHMOND, VA., August 13.—An abandoned wooden icebox yielded the bodies of 4 adventurous barefoot boys today only a few hours after 5 children had died in a similar tragedy in Arkansas.

The victims here had been missing since Tuesday and were the objects of a 1,000-man search described as the biggest in Richmond's history.

At Crawfordville, Ark., the five children of Mrs. Annie Bell Hallman, wife of a tenant farmer, crawled into an icebox despite their mother's warnings. Their bodies were discovered last night.

A member of a search party scouring the grounds of the Veterans' Administration paraplegic treatment center here opened the double doors of the big, 9-foot wooden box and found the 4 bodies this morning.

Walter Charles (Tex) Boykin, 7 years old, son of Dr. J. Melvin Boykin of Temple, Tex., acting manager of the hospital, was lying nearest the door. Behind him lay the bodies of twins, Woodrow and Wilson Blackstock, 7, sons of the hospital maintenance engineer, Woodrow Wilson Blackstock. In the rear was George Blackstock, 5, younger brother of the twins.

Dead in the Crawfordville tragedy were Edward, 9; Wesley, 7; Odie and Tommy, 4-year-old twins, and Barbara Ann, 2.

[From the Gadsden (Ala.) Times, March 16, 1955]

TRAGIC ICEBOX DEATHS AGAIN

Another abandoned icebox tragedy, this time in Alabama, has renewed the warnings against leaving such things around where children can play. There's something about them that fascinates youngsters, and in many places across the Nation death has resulted.

Two Alabama children died in this way last week, a little boy and his sister. The girl was 6 and the boy 4 years of age and the tragedy occurred in a small community near the Georgia line.

This should focus renewed attention on legislation sponsored by Representative Kenneth Roberts of the Fourth Alabama District to require that all iceboxes sold in interstate commerce be equipped with inside latches. These would be such that the frantic struggles of trapped children would be almost certain to open the door. However, waiting on such legislation to become effective would require a lot of time during which more deaths can occur

But it should be possible to reach all parents and others who may have any abandoned iceboxes around and induce them to remove the latches or make other provision so that children could not trap themselves and smother. It would seem there has already been enough publicity given the tragic deaths and enough warning of the dangers to bring about the elimination of all such dangers. But reports of new tragedies from time to time show the need for more effort is this direction.

[From the Washington Post and Times Herald, August 2, 1954]

DEVICE INVENTED TO KEEP CHILDREN OUT OF ICEBOXES

A Washington Gas Light Co. employee, concerned over cases of children who suffocate in abandoned refrigerators, has an invention he says will keep them out in the first place.

Bernard M. Funk, an appliance serviceman and a company employee for 14 years, lives at 18 Thomas Street, Silver Spring. He isn't the first inventor to tackle the problem.

"Up to now," he said, "other devices are aimed at letting kids get out once they crawl in and lock the door. My invention doesn't let 'em in."

Funk's device (it has been patented) is a valve that fits in a corner of the door which automatically locks the refrigerator when its electric plug is removed from the socket.

What happens when a home's electric power is cut off during a storm and the box, full of food, locks? To meet that contingency, Funk has designed a strong spring that fits in the top of the refrigerator and is attached to a small button. An adult can pull up on the button, release the spring and open the door, but he says it would take at least three children to open the box in this manner.

He pointed out that if the door is open at the time the current goes off, it cannot be closed until electricity is applied.

Funk submitted his invention to General Motors, Frigidaire Division, almost a month ago and had a letter from them this week saying it was being considered by their new devices committee.

He estimated that the safety device can be installed for less than $10 each on new refrigerators and for slightly more to existing models.

Funk said his idea for the automatic lock came when a Senate subcommittee held hearings last April on a bill calling for inside latches on refrigerators moved in interstate commerce. It was perfected overnight, he said.

A native Washingtonian and graduate of Central High School, Funk is the father of 3 children, 4, 5, and 9.

[From the Washington Evening Star, June 11, 1954]

LOCAL SAFETY LAWS ON ICEBOX HAZARD URGED BY SENATE

(By the Associated Press)

The Senate yesterday urged States and cities to pass legislation protecting children from the hazard of discarded refrigerators.

A resolution adopted without debate said at least 79 children from 2 to 12 years of age had been trapped in refrigerators and died since 1948.

With the airtight boxes being discarded at the rate of 2 to 3 million a year, the Senate commended States which have passed protective laws, and urged others to adopt similar legislation.

The resolution says the industry has not yet been able to develop a door catch which will both keep the refrigerator airtight and yet work easily enough so that a child could open it from inside. Until such a latch can be perfected, the resolution says proper enforcement of adequate State and city laws governing disposal of refrigerators is the best way to protect children from the hazard.

[From the Electric Appliance Service News, August 1954]

IDEA FOR AN ICEBOX LATCH

There have been all kinds of ideas for making a lock on a refrigerator so that when it is discarded, a child cannot lock himself in, leading to tragedy.

In the News (this issue) is a story of an inventor who offered a magnetic means of holding a door shut on a refrigerator in such a manner that if the center shelf was removed, the door could not be held closed, thus removing the possibility of a child entering the box and being locked in. The idea was condemned by a popular manufacturer who stated that the magnetic lock was not strong enough to seal the door and that contamination of food could cause more deaths than that of suffocation.

We have an idea we believe can be worked out very practically and with little expense. Why not make a lock that has a magnetic trigger which would make a mechanical lock inoperative by means of a trip? As long as the refrigerator is plugged in, the magnet is energized and the mechanical lock holds the door shut in the conventional way—no contamination of food here. However, once the refrigerator is discarded and the current shut off, the mechanical lock becomes completely inoperative, and the door can be pushed open without any effort, since the catch will not hold.

The magnetic lock is not new. There are many locks of this kind on the market used on doors of cashiers' cages, etc. The idea is the same; all it needs is a slight

revision to apply on a refrigerator latch. It can be done, and we urge the manufacturers of refrigerators to give this idea some thought. Perhaps it won't be the immediate answer to those boxes now on the market, but the millions of potential deathtraps must be considered. There has to be a starting point to end for once and all any possibility of child deaths by suffocation in discarded refrigerators.

[From the St. Louis Post-Dispatch, May 18, 1955]

OWNER CHARGED IN ICEBOX DEATH OF 2 CHILDREN—EAST ST. LOUISAN IS ACCUSED OF FAILURE TO REMOVE DOORS—VICTIMS BOTH 3

Julian Gilliam, an East St. Louis landlord, today was under charges of failure to remove the doors from 2 iceboxes, after 2 neighbor children suffocated yesterday in 1 of the boxes when playing in a shed in the rear of Gilliam's home, 2506 Douglas Avenue.

The victims were Nancy Anne Cygan, daughter of Mr. and Mrs. Edward Cygan, 2508 Douglas Avenue, and Robert Ballance, son of Mrs. Edna M. Ballance, a widow, 1416 North 25th Street. Both were 3 years old.

The bodies of the children were found in the closed box at 4:15 p. m. following a search by Mrs. Cygan and Elmer Ballance, grandfather of Robert. Mrs. Gilliam also participated in the search, which began after the absence of the children from the yard, where they had been playing, was noticed about 3:55 o'clock.

Police Sgt. Rollie Cummings and Patrolman Charles Carney, Jr., who were called, applied artificial respiration, pending the arrival of an ambulance. The children were pronounced dead at Christian Welfare Hospital.

Gilliam told officers he had placed two iceboxes in the shed while apartments he rents were being decorated. He said he had intended removing the doors.

The shed was closed, but the children apparently gained entrance through a hole, after removing a loose board. Plastic toys were found in the food compartment of the box, into which they had crawled to play. The door had closed and locked, trapping them inside.

Two warrants were issued against Gilliam by Justice of the Peace Edward F. Horrigan, charging violation of an ordinance requiring that the doors be removed from unused iceboxes that are accessible to children. The ordinance was enacted several years ago, following a series of incidents throughout the Nation in which children suffocated in abandoned iceboxes.

The Ballance and Cygan properties join at the rear yards, and Robert and Nancy were playmates, moving from one yard to the other. When they failed to appear in either yard, the search began. An inquest will be held in the deaths.

Mr. DIES. It would seem to me that if the handle in these large refrigerators were put up sufficiently high, a small child could never get into one of them.

If there was some sort of a device which, when the door is opened, would not permit the door to close without some trigger to it or some mechanism, perhaps you could protect the smaller child.

Why could not something be perfected that would be very simple and economical? If you get into a lot of expense and complications, of course you put a tremendous burden upon the consumer, that is if the consumer has to spend a lot of money all over the United States. It would appear to me that something simple could be devised.

I was locked in an icebox myself once, and it scared me half to death, and I stayed in there until I was just about frozen stiff. It was one of those great big things.

Mr. CARLYLE. I am glad that you got out.

Mr. DIES. I got out because my aunt—I was on my uncle's ranch—happened to go down to this big stone building to get something. When she opened the icebox I had been in there for about 2 hours.

Every icebox like that ought to have a way to get out of it.

Mr. HESELTON. If the gentleman will yield. I might say it is fortunate for the Congress and the people of the United States that you got out of there.

Mr. DIES. I appreciate that, but that is a farfetched statement.

It just occurred to me that these big commercial iceboxes ought to be equipped with some device which would enable one to get out of them. I think that would help tremendously. But many of them are not so equipped. You get inside and you just stay there.

Mr. CARLYLE. I rather believe that some of these devices that have been invented would perhaps work successfully on a refrigerator and might not on an icebox.

Mr. DIES. Why would it be any burden on the manufacturer of a large commercial icebox? Many of them I am sure now do have a device which enables one to get out of them, but certainly every one ought to be required to have a handle on the inside where a man could get out just the same as he got in.

With respect to these little children—I brought up a lot of little children and I know how they are—if you are defrosting an icebox, and the mother leaves the icebox open and goes off somewhere, the child naturally crawls in and closes the door on himself.

Then you have a tremendous problem of whether the child, even if the refrigerator was equipped with a safety device, would have the intelligence and the maturity to know how to get out. If there was some way that when the door was opened it would remain open until through some intelligent action, something was released that would be simple. I am certainly not an inventor, but I just simply advance those ideas. I just suggest that if something could be perfected, no doubt the manufacturer would not object to it. I imagine what they object to is going into a tremendous expense and a complicated thing, especially when there is so much competition in the sale of iceboxes.

Mr. ROBERTS. I appreciate the gentleman's contribution, and I will say that one of the devices that I have seen is a magnetic type of device that when the first shelf, the shelf nearest the handle, I will say the lower shelf, is out of position, that door will not close. So the housewife can very easily prevent anything happening there by simply removing that shelf.

I think, as you say, that the industry has taken a position that they want to develop such a device, but so far, they have not hit on what they want.

Now, I do not know if we give them a deadline, if they will come up with something or not. As I say, I am no engineer, but I am personally convinced that such a device is in existence today.

Mr. DIES. I will tell you one thing, it would relieve a lot of mothers of fear. I know my daughter-in-law has a fear that one of these little children will get into the icebox. I would think that the average consumer would rather pay a little extra, and have some safety device than they would otherwise.

Mr. CARLYLE. All right. Does that conclude your statement?

Mr. ROBERTS. It does.

Mr. CARLYLE. We have with us at this time a very fine friend and Congressman, Mr. Albert Rains, of Alabama, and we would be glad to hear from you at this time.

STATEMENT OF HON. ALBERT RAINS, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF ALABAMA

Mr. RAINS. I do not have any written statement, Mr. Chairman and gentlemen of the committee, but I have had this situation brought forcibly to my attention by deaths in my congressional district.

When Congressman Roberts, who is my friend and colleague from Alabama, first introduced this bill, it did not carry much importance to me. But after 2 children in my hometown of Gadsden, Ala., 1 of them about 6, and the other about 4, climbed into an abandoned refrigerator and were killed, and then only a few months ago over in another country of my district, 2 other children climbed into an abandoned refrigerator and were killed, I came to be much concerned about this type of legislation.

Of course, over the years I have read, as you have, of the tragedies which have struck families with their little children by virtue of these refrigerator deathtraps.

I am no inventor, but I know that the trade could make some kind of a safety device which would respond to pressure either against the door or against the lower shelf, or that some kind of a gadget could be put on it as you mentioned, Mr. Dies a moment ago, whereby once the door was pulled open, much like an automobile door today, on a heavy automobile, you pull that door all of the way back and it takes considerable force to get it loose from its first notch and to swing to again, as you know. Some sort of device of that sort could be made by the trade, I am sure.

I realize it would not do to put heavy burdens and costs on the industry, which will be passed on to the consumer, but I cannot imagine, with all of the tragedy which has come to the people of America by reason of these unsafe iceboxes or refrigerators, a finer advertiseing statement than for some great refrigerator manufacturer to come out and say "We have the safety gadget which will take the fear out of the hearts of the mothers." I am convinced it would be a great help to the company that really does it. There is no doubt about it.

Whereas I do not have any definite remedy for it, gentlemen, but I would like to see some type of legislation enacted which would give these little fellows a good measure of safety.

Now, mentioning the various campaigns to get these old discarded refrigerators, the danger is not limited to discarded refrigerators, junior chambers of commerce in my section, have gone on campaigns of tearing the doors off of all discarded refrigerators and things of that sort. But that is only a partial answer to the problem.

I realize that Congressman Roberts, the author of the bill, does not want to put any undue hardship on anybody, but this is an important matter. As you talked a moment ago, I thought of automobiles. They are a death-dealing device in the hands of some people, as we all know, and we make all types of laws regarding brakes, regarding all types of safety devices, but actually those death-dealing devices are in the hands of adults. Whereas the ones we are dealing with here today are dangers to the little fellows who do not know enough to protect themselves. So we ought to take more extreme caution with these problems than we even would with an automobile.

I have not seen any of the inventions which have been made, but this is a small matter to a big industry, and to the know-how and the inventive genius of the people of America. I have no doubt that if this Congress were to act the problem will be met. Since refrigerators are shipped in interstate commerce, it becomes the problem of the Congress of the United States. I do not think that there is any doubt about it.

Of course you are right in saying we cannot pass laws that will affect altogether intrastate shipments. But if the Congress of the United States acts, the various State legislatures following the lead of the State of Tennessee and a great many cities who have already passed ordinances, I feel sure, will act to take care of any situation inside the State.

Mr. CARLYLE. Mr. Rains, because of the close relationship between that picture and part of your evidence, I wish that you would identify the picture for the record.

Mr. RAINS. This picture happens to be in the Anniston Star, the hometown paper of my good friend Kenneth Roberts, but the tragedy happened in my district, which is adjacent to it. It is from the Anniston Star, on Friday, March 11, 1955. It is a picture where tragedy struck—that is the title of the picture—to Jesse M. Otwell. He found his grandchildren there; one small shoe still stands in the box, and the news story says it is a mute sign of the tragedy which took the lives of this girl and her brother, 4 years old. The children of Ranburne suffocated when the refrigerator door slammed after they apparently climbed inside.

Mr. CARLYLE. Are there any questions, gentlemen?

Mr. ROBERTS. I have no questions, but I would like to thank the gentleman for his very fine statement, and for his appearance here.

Mr. RAINS. I appreciate the opportunity to appear, and I hope that you gentlemen in your wisdom will find some answer which will help save these kids. It would be a real monumental piece of work if we could do it.

Mr. DIES. Even if you cannot find an absolute answer that in every instance would be foolproof, you do believe that every reasonable precaution ought to be taken to protect the lives of children?

Mr. RAINS. There is no doubt about that. I think, too—and you mentioned those big iceboxes a moment ago—I am correct in saying that one of the leading manufacturers already has a magnetic device on the inside which will open them. I think the large iceboxes are more dangerous for grownups than they are for the small children.

Mr. DIES. Unless they are abandoned. If they are abandoned where children can get to them, they will go in them every time. They will play just like you and I used to do, and that is where they become dangerous. They used to make iceboxes that you could not get out when you once got in the thing. I do not know whether they are still being manufactured today.

Mr. HESELTON. Mr. Rains, in the first place, I do not think that you should deprecate your contribution to this subject. I think everyone in Congress is deeply interested in this type of problem, but unfortunately we do not have matters called to their attention as effectively as you have.

We have something better than 2,000 bills from the number on this bill, I would say, and I think appearances such as yours are very helpful to any subcommittee or any committee.

The first question I wanted to ask probably should be directed to my colleague, Mr. Roberts, and if he wants to supplement whatever comment you make, I am sure the committee would be glad to have it.

I notice in the draft of the bill, it states "unless the door of such refrigerator is equipped with a door-closing device which enables the door to be opened easily from inside the refrigerator." I can understand why that type of language is used. However, I think it raises the question as to who is going to decide what is a door-closing device which enables the door to be opened easily from the inside. Have you any comments on that?

Mr. RAINS. Of course, these are just random thoughts, and I am not mechanically inclined in the least, but it appears to me there ought to be some type of device perfected to which pressure against the door or floor from the inside would cause the door to come open. Or that there should be some type of safety device which once the door is pulled completely open, it takes a special turn to close the door or to cause the lower shelf if it is moved in any way, to prevent closing.

Mr. HESELTON. What I had in mind, probably can be handled by the second question, and with a brief reference to the Secretary of Commerce's letter, with regard to freezers.

I think the language applies there. It says:

> It would be unfortunate if an impression were created that all new appliances of this general class were equipped with safety devices.

I think that that does pose a problem to us as to who, if this bill should be enacted, would be the proper person to approve or disapprove a safety device.

My second point, to cover both of them at once is this:

This committee over a period of some years, struggled with the problem of flammable fabrics, those cowboy suits which caused tragic accidents, and I think the committee was quite satisfied with the cooperation it did obtain from industry. As a matter of fact we reported out a bill finally with complete approval of industry itself. It was true there was some little difficulties that came up afterward, but basically it was a cooperative effort with the Bureau of Standards and industry working together and finally coming to the committee and saying, "This is what we are willing to undertake in order to solve this problem."

This is a leading question, but do you believe that the Federal Government through the Bureau of Standards or some like agency, and industry, could be asked to try to apply their tremendous resources and their intelligence to this problem, and furnish something that they could jointly recommend to Congress as good legislation?

Mr. RAINS. In the first place, I think it would finally, under that language, if it were adopted, be up to the Bureau of Standards or someone with the knowledge they have to say whether it is an adequate safety device to comply with the language there.

Now, none of us as laymen could say, I am quite sure.

Secondly, I am convinced that if the Bureau of Standards and the United States Government really requested that there be some action taken on this bill, the answer could be had. I do not think there

is any doubt but what it could be done. Whether or not this bill is enacted at this session of Congress, the interest that this committee has taken in it, and the good work that our friend, Kenneth Roberts has done on it, it is going to bring the answer to this type of problem. It should not be delayed, and I am sure that eventually industry will cooperate completely to help us solve it.

Mr. HESELTON. Thank you very much.

Mr. ROBERTS. Thank you very much, Mr. Rains.

Mr. Heselton, if I may, on this question you asked Mr. Rains. The reason I reintroduced H. R. 2181 is that I had previously introduced H. R. 7920 which was a companion bill to S. 2891, introduced by Senator Sparkman in the Senate. In those two bills we had said that it shall be unlawful for any person to introduce or deliver for introduction into interstate commerce any household refrigerator unless the door of such refrigerator is equipped with a latch which enables it to be opened from the inside. But I felt that of itself would limit that device to a latch, an inside latch, and this problem might be approached by some other device. Perhaps it would not necessarily have to be a latch. It could be pressure from inside. I believe you mentioned, and you asked if there was any kind of device that could be released by enough weight being placed on it, since it is perhaps on the bottom shelf. That was the reason for the change in the bill. I recognize that I am not an engineer at all, and I felt like this latitude in language would allow any kind of a device whether it is a latch or otherwise that would do the job to be considered by the committee.

Mr. RAINS. There is a good point, if I may say in closing, to what you read from the statement. I think it was from the Department of Commerce. They said there that it would be a bad impression to give out the idea that any type of device which had been put on might be a perfect safety device. I doubt if perfect safety devices are made. The only way you could arrive at any approval of those things, I judge, would be with the Bureau of Standards.

Gentlemen, I thank you for letting me appear.

Mr. CARLYLE. Thank you very much.

The Honorable Peter F. Mack, Jr., is here, and I understand he has a statement to make.

STATEMENT OF HON. PETER F. MACK, JR., A REPRESENTATIVE IN CONGRESS FROM THE STATE OF ILLINOIS

Mr. MACK. I have no formal statement, Mr. Chairman, but I do appreciate the opportunity to appear and I want to commend my colleague, Mr. Roberts, for having introduced this legislation. I have been familiar with the legislation for the past 3 or 4 years since we have had it in our committee, and I know that we have discussed it and we have treated it very lightly. As a matter of fact, I drew up similar legislation 3 or 4 years ago and did not introduce it. I had considered it, and I thought about introducing it. At the time, like Mr. Rains, probably did not know whether it was important enough to introduce it or not.

Then later my colleague, Mr. Roberts, introduced the bill and still we questioned whether it would be worthy of consideration by the Congress.

I did not mean exactly that it was worthy of consideration but I had in mind whether it would be feasible and advisable to consider it.

I think it is highly important and I believe it is a correct approach to this problem. We are still having young people in our country that are claimed by reason of these abandoned refrigerators, and some of the refrigerators that are merely stored. I think it was last March, and I do not have the clipping here at the present time, and I believe it was the same month that the other 2 children were killed in the refrigerator down in Alabama that we had 2 young people in East St. Louis, Ill., killed in a similar fashion. I do not know whether we have that clipping here at all. I mentioned it to Congressman Roberts at the time.

Mr. ROBERTS. I think this is the one.

Mr. MACK. This appeared in the St. Louis Post-Dispatch, and it was in May; May 18, 1955. These two young people were killed. They were both 3 years old, and their were claimed in this refrigerator stored in a garage in East St. Louis. They were stored in a shed behind the home.

Now, this is a case of not being an abandoned icebox, or refrigerator, but an icebox or refrigerator that evidently had been stored on private property in a garage or a shed and the neighbor's children came over and were playing in the area, and got into the icebox, and the first thing they knew they found the two bodies in the ice box.

I think these are cases we are familiar with, that we know about that have been called to our attention. As I say, it has struck very close to home. You find cases like this. It seems that each month, there is hardly a month passes without some other children being claimed by such a device.

In my own State of Illinois, they have introduced a proposal removing the doors to the refrigerators, and of course, as Mr. Rains said, the junior chambers of commerce and other organizations have conducted these campaigns to remove the doors and make it safer. But that unfortunately is not the solution. An abandoned refrigerator or a used refrigerator that is replaced in the home still has some utility value. The people are reluctant to discard them, and they think there is always a possibility of using them later on.

Therefore, I believe that the approach that my colleague, Mr. Roberts has, is the correct one, and I believe it is extremely sound legislation and I certainly think it is worthy of our very serious consideration. I personally feel that it should be passed by this Congress.

Now, the objections that we have heard and the difficulty and the problem of developing a satisfactory device does not seem to me to be a major problem. I cannot believe that the advancement that we have had in our mechanical sciences is such that we are confronted with any special problem of any kind. When I look at the improvements that we have had in household appliances and in refrigerators, it seems to me that it would be very simple for the manufacturers to develop such a device, and in view of the progress that they have made, and in view of the propaganda they have put out concerning the devices of leaning against the door to open it from the outside, I cannot help but believe that they can do it from the inside. Furthermore,

I feel that the manufacturers would be reluctant to admit that they could not develop such a device for opening the refrigerators from the inside.

I am not an engineer myself, but I am quite certain if the engineers concentrated on developing such a device, one could be developed where the icebox could not be closed or the door could not be closed if the electric power was turned off. They have no use or they have little use for closing the door unless the electric power is turned on. I think that is one way that they could handle it and comply with the provisions of this bill.

I feel definitely that Congress has a responsibility to approach this problem, that they should enact some legislation to require a device or some measure to open the icebox from the inside. These children, although very young, that have been getting into the iceboxes, many of them have found the handle to open the icebox from the outside, so I think we should give them a chance to open the icebox from the inside.

That concludes my statement, Mr. Chairman.

Mr. DIES. I just want to ask you this: Some people proceed on the assumption that we are requiring absolute safety, and the argument is that you just cannot have it because you cannot foresee all of the circumstances. No one has that in mind. If you have reasonable precautions, considering everything, that is something. You are going to come up with a situation, of course, that you did not foresee, but do you not think that if we do the best we can and take reasonable means, that is accomplishing a good deal?

Mr. MACK. That is exactly correct. I have no intention at all of leading anyone to believe that every time an icebox door is closed, if you have such a device, that the children are safe and would get out in every instance. All I want is to take a little precaution. It is like having a liferaft when you are abandoned in the ocean. It is no guaranty that you will get to shore, or survive, but you have a chance to survive, and it is the same way in an airplane carrying a parachute. If you have a parachute there is a possibility that you will get down alive, and if you don't have, there is no possibility.

Mr. ROBERTS. I would certainly like to thank our colleague for his very fine statement, and for his support of this bill.

Now, at one point, I want to emphasize a part of his testimony, I believe there have been some advertisements about doors that can be closed, and that can be closed with just a nudge.

I have here, which I would like to show the members of the committee, a type of magnetic door that has been developed, and it is in operation now. You might look at it at this time since we are talking about that point.

Mr. CARLYLE. There are some refrigerators being manufactured now, you mean, of that type?

Mr. ROBERTS. Yes. That is as I understand it. It is the large freezer wall-type of refrigerator.

Mr. CARLYLE. Would you estimate how much that device adds to the cost of the refrigerator?

Mr. ROBERTS. I have seen some figures on that, and I think that this is what we call the standing type here, the domestic size. I think that one is being developed today but I do not know what the cost would be.

Mr. DIES. There is one thing that we ought to emphasize, and that is that aside from the saving of lives, which is tremendously important, the relief that the average mother would get would be a tremendous factor. Very few women now can afford a housemaid. They have a terrific problem, a much greater problem today than when I came along. Children have a harder problem. We could get help and they cannot get help now. Anything which relieves them of that anxiety, in connection with children, makes the product considerably more valuable, I would think. That is an important thing. It is not so much the actual loss, but to still those fears which they have. Every time they pick up a paper and see where some child has suffocated in an icebox, every mother is in torment about her children. If she goes anywhere, or does anything, she worries about it. I thing anything that would tend to quiet those fears would be a selling asset to the refrigerator.

Mr. ROBERTS. That is a very important contribution.

Mr. DIES. It would be to me. I would rather pay $20 or $15 or anything else within reason if I had the idea that at least the child would have some chance.

Mr. CARLYLE. Thank you very much, Mr. Mack, for being a real help to us.

My interest in this legislation prompts me to think that if we could just save one child from suffocating, it would be well worthwhile.

Mr. MACK. Mr. Chairman, I might also mention that in many of the articles I have seen, and especially children of this age bracket, you find children of the same family. The impact is twice as great when it claims two children in the same family. I think that makes the problem that much more important. I want to thank you for the opportunity of testifying, and I do think it is important legislation.

Mr. CARLYLE. Thank you for coming.

The next witness is Mr. Silas A. Morehouse, the president of SiLok, Inc., and a resident of Virginia. Mr. Morehouse, will you come forward?

Do you have a prepared statement?

STATEMENT OF SILAS A. MOREHOUSE, PRESIDENT OF SILOK, INC., ACCOMPANIED BY MRS. HELEN H. MOREHOUSE

Mr. MOREHOUSE. Yes, I do, Mr. Chairman.

I am Silas A. Morehouse, president of, and representing SiLok, Inc., a Virginia corporation.

We urge passage of H. R. 2181 now before your committee.

Suffocations inside in-use refrigerators are increasing and outnumbering those in abandoned refrigerators. Both categories can eventually be eliminated by installing safety devices at time of manufacture.

Most of the recent deaths that we have heard about have been in in-use or temporarily out-of-service refrigerators; a refrigerator newly cleaned; one in an apartment awaiting the new tenant; one being moved from one house to another. In the majority of cases two children died together.

Newspaper accounts almost invariably stated or illustrated that the refrigerator shelves had been removed. With our safety closure, these

tragedies could not have occurred, as our closing mechanism is tied in with the shelves.

Assurances have been made to us by several manufacturers that volume production of our safety closure can be achieved by use of their automatic equipment capable of economical and high output.

The safety refrigerator-door closures—both magnetic and mechanical—that we have developed provide good door-sealing pressures, thus insuring proper refrigeration. They permit anyone inside of the refrigerator to escape suffocation.

Late in 1954, our Silok safety closures were installed on 6 household refrigerators, of 5 major brands, furnished us by those refrigerator manufacturers. The Silok-equipped refrigerators were returned to the companies for their examination and test. With the magnetic type, the door can be opened easily from the inside. With the mechanical type, the door is not permitted to close tight when anyone is inside.

Recent refrigerator tragedies, more often than not, have involved two children. Newspaper accounts have stated that the shelves had been removed. With our type of safety closures, these tragedies could not have occurred; with the shelves removed, the door will not lock shut.

The components of both types of locks were produced by leading manufacturers. The mechanical link assembly was made with parts of a standard steel roller chain supplied to us by a major chain manufacturer. Therefore endurance of those parts can be assured.

The magnetic assemblies were fabricated with magnet blanks produced by two major steel companies which specialize in the manufacture of magnetic steels. A holding force of approximately 35 pounds was obtained per ounce of Alnico V magnet material. Any straying magnetic flux common to magnets is greatly reduced with this type of assembly and is no more than is found in the vicinity of radio and television receivers. Alnico V magnets are described as permanent, and their lasting qualities are well known by industry.

Manufacturing cost of either type of lock compares favorably with that of locks now in use on millions of quality household refrigerators.

As a result of congressional hearings in 1954, a Senate resolution urged concentrated efforts by the refrigerator industry to produce a satisfactory safety lock, and urged appropriate legislation by the States.

Industry's only visible result is a wall-type refrigerator-freezer model by one of the major refrigerator manufacturers. Although that company apparently chooses not to advertise the safety feature of its magnetic gasket, the refrigerator door can be pushed open easily from the inside. The model is priced somewhere between six and eight hundred dollars, which is beyond the means of millions of new-refrigerator purchasers.

At least 34 States, on the other hand, now have laws whereby penalties may be imposed upon those responsible for loss of life inside a refrigerator. Numerous municipalities, too, have passed similar ordinances.

Outstanding is the aggressive action taken by the State of Tennessee in passing a law requiring, by early 1957, safety devices on new refrigerators sold in that State.

Under "Interim measures" should also be classed what has become a yearly drive against refrigerator deathtraps, by refrigerator manufacturers, dealers, and servicemen; by safety organizations; by civic groups and women's clubs; by radio, television, and the press. This is a highly commendable endeavor, but it does not cover the in-service refrigerators, which have been claiming an increasing number of victims.

Elimination of the cause is the only sensible solution.

Within two comparatively small groups of manufacturers lies the answer to providing safety locks for all household refrigerators. Three manufacturers of refrigerator hardware supply over 95 percent of the locks; and less than 25 refrigerator companies make and/or assemble the components, such as controls, refrigerants, shelves, trays, gaskets, switches, and hardware, of over 95 percent of the household refrigerators.

Why not put into general use the best safety locks now offered?

(Descriptive paper illustrating the SiLok Safety Closure follows:)

SiLok

Safety Closures for Household Refrigerators

These protographs and description show the many advantages of the SiLok safety refrigerator door closure. Its safety features protect the life of anyone inside the refrigerator, whether the refrigerator is upright or on its side or back.

This lock has two functions. When the rotating strike arm (A) is in position against the front edge of the refrigerator shelf that is used to keep the rotating strike in locking position, the lock mechanism (B) will hold the door gasket tight against the refrigerator. When the rotating strike is free to pivot on its axis, as with the locking shelf removed or tilted upward, the door cannot be locked shut and will be forced ajar.

By use of an adapter, the present door handle (C) on a refrigerator can be used. The rotating strike is mounted in the usual place. The opening in the inner door panel would be moved inward from the edge about one inch. A resilient bumper on the edge of the shelf is desirable.

This mechanical-type safety refrigerator door closure was developed for those who prefer it to the magnetic-type SiLok. It is practical, economical to manufacture, and is long lasting.. The working parts of the lock mechanism consist of 5 links of number 2050, double-pitch, 1¼-inch industrial chain. It is estimated that 2 hours of chain life under average working load would represent the full life of 15 years for household refrigerator use. Thus the durability of the lock mechanism is assured.

There is no need for training children in the use of the SiLok closure, as when shelves are removed to make sufficient space for a child, the locking feature becomes inoperative. Thus the refrigerator is always safe against mechanical suffocation of children.

SiLok Inc.,
Post Office Box 4085,
Jefferson Manor, Alexandria, Va.
July 1, 1955.

Mr. Carlyle. We appreciate very much your statement. Now, does that conclude your statement?

Mr. Morehouse. Yes, it does.

Mr. Carlyle. Who do we have here this morning who is in a position to explain this?

Mr. Morehouse. Mrs. Morehouse is quite capable of doing that.

Mr. Carlyle. Mrs. Morehouse, would you demonstrate this device here?

Patent applied for.

Mrs. MOREHOUSE. It is a regular lock. This device is related to this shelf, and if this shelf is out, the door won't close, or if a child should manage to get under here, he can push this up and it won't close.

Mr. ROBERTS. Would you bring that around so that everybody could see it?

Mrs. MOREHOUSE. My husband has advised this idea of a nylon cord here, and by pulling up on it it shows when there is a small pressure underneath that shelf, that the child could displace that shelf and it would trip open, and it will lift the shelf, and now, it will not stay closed.

Mr. ROBERTS. That is a mechanical device?

Mrs. MOREHOUSE. Yes, it is. The magnetic one which we had before your committee last year was also related to this shelf, so that if the manufacturers felt they needed more pressure than just what was necessary to push the door open, it could be tied in with this and give them much more pressure, and so that if that shelf were displaced, the door would not close.

Mr. ROBERTS. Do you have any figures on the cost that this mechanical device would add to the cost of a refrigerator?

Mrs. MOREHOUSE. I think my husband has those figures.

Mr. MOREHOUSE. The information we have from several manufacturers is that the cost would be approximately the same. Actually all that there is added to this mechanism is an arm, a quarter-inch rod, about 8 inches long.

Mr. ROBERTS. The cost of the magnetic and the cost of the mechanical device would be the same?

Mr. MOREHOUSE. The expense of a piece of rod, about 8 inches long. The magnetic lock is samewhat simpler, and it only uses 1 ounce or 1¼ ounces of magnetic material, which is about $3.60 a pound. The rest of the mechanism would be about the same.

Mr. ROBERTS. What would be a round figure of cost on the mechanical one?

Mr. MOREHOUSE. The prices I have had on the making of the parts, that does not include the handle, but the parts inside the box, is about 81 cents.

Mr. ROBERTS. What would be the cost of the magnetic type of closure?

Mr. MOREHOUSE. I would say 85 cents. It would cost a little bit more, because there is a critical shortage sometime of the magnetic material.

Mr. ROBERTS. What materials would you use in the magnetic type of closure?

Mr. MOREHOUSE. At the present time we plan to use Alnico No. V.

Mr. ROBERTS. What is that, an alloy?

Mr. MOREHOUSE. It is an alloy made of cobalt, aluminum, and nickel. However, they are coming out with a ceramic type of material which could be considerably cheaper. That is a ceramic material that is now being developed by several of the steel companies.

Mr. ROBERTS. Do you know of your own knowledge, of any part of the refrigeration industry that has used this magnetic type of closure?

Mr. MOREHOUSE. Well, GE has their wall-type refrigerator freezer, and they have gone back to their magnetic one, and I think they came out in 1950. Although I do not think that many of them have been sold, they are on display and advertised as the magnetic door seal.

Mr. ROBERTS. You have actually seen them?

Mr. MOREHOUSE. Yes; and there are several here in Washington.

Mr. HESELTON. What did you call that?

Mr. MOREHOUSE. The "magnetic."

Mr. HESELTON. You said some type was involved.

Mr. MOREHOUSE. It is a wall type, and it does not sit on the floor—they hang it on the wall.

Mr. CARLYLE. Are there any other questions?

Mr. ROBERTS. That is all that I have.

Mr. HESELTON. Could I ask a few questions?

In your statement, Mr. Morehouse, you raised a few points as to which I am not entirely clear.

You state that the—

> manufacturing costs for either type of lock compares favorably with that of locks now in use on millions of quality household refrigerators.

Then further on you state that—

> industry's only visible result is a wall-type refrigerator-freezer model by one of the major refrigerator manufacturers.

I understand from your testimony that that is what you just referred to as a wall type; although that is a—

> magnetic gasket, the refrigerator door can be pushed open easily from the inside. The model is priced somewhere between six and eight hundred dollars, which is beyond the means of millions of new-frigerator purchasers.

As to your statement that the manufacturing costs compares favorably with locks on millions of quality household refrigerators, are the manufacturers actually putting out their own type of safety device?

Mr. MOREHOUSE. No. When I referred to the costs of the lock, the lock is broken down into three parts. The handle on the outside or locking mechanism, and the part that is attached to the box proper. If you put a handle on the outside of the door, that has nothing to do with the locking mechanism actually, which is on the inside of the door. The mechanism on the inside of the door, I would say, most of them sell for less than $1. I am talking about production costs, and they are sold directly to the refrigerator manufacturer, and they are not marked up 3 or 4 times through the distributors and the retailers like we do in most common items that we buy ourselves in a store.

The locking mechanism on household refrigerators is a relatively very inexpensive item. When I referred to the luxury item, when industry introduces a new item, usually it is associated with a very high price, and it will come down as their production and sale increases.

Mr. HESELTON. You say here that it is priced between six and eight hundred dollars. What is the average price of a new refrigerator?

Mr. MOREHOUSE. The average price would be under $300.

Mr. HESELTON. So it is double or more, in order to get this device?

Mr. MOREHOUSE. It is a nice refrigerator and well made, and I have to speak highly of it, because it is.

Mr. CARLYLE. Thank you very much.

Mr. F. J. Hausfeld, we will be glad to hear from you.

This witness will represent the Electrical Manufacturers Association of New York.

STATEMENT OF F. J. HAUSFELD, MANAGER OF ENGINEERING, REFRIGERATOR DIVISION, INTERNATIONAL HARVESTER CO., REPRESENTING THE HOUSEHOLD REFRIGERATOR SECTION AND FARM AND HOME FREEZER SECTION OF THE NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION, NEW YORK, N. Y.

Mr. HAUSFELD. I have a statement in opposition to the bill that I would like to present.

My name is Frank J. Hausfeld, and my occupation is manager of engineering of the refrigerator division of International Harvester Co., located in Evansville, Ind. Our company manufactures household refrigerators and farm and home freezers.

I appear here representing the household refrigerator section and the farm and home freezer section of the National Electrical Manufacturers Association, whose members manufacture over 85 percent of the electric household refrigerators and 60 percent of the farm and home freezers made in the United States. The list of these manufacturers is appended to this statement, appendix A.

In presenting this testimony, we respectfully ask the special subcommittee to keep in mind the fact that protection of health and human lives has been the accepted responsibility of the refrigeration industry since its inception. Proper food preservation has played no small part in lowering infant mortality and in increasing the span of life generally. Saving lives is a fundamental part of our business and, because of this, we are very concerned that children have accidentally suffocated in products intended to help rather than harm them. The problem of preventing these tragedies, however, is not one which we believe can be solved best by Federal legislation. We accordingly are opposed to H. R. 2181, introduced by Representative Roberts.

It is our considered opinion that a more practical solution to the problem lies in two directions:

1. Make refrigerator users more responsible.
2. Allow industry time for proper development work.

Let us consider No. 1 phase first, for we believe it is the most urgent. Today there are over 50 million iceboxes, freezers, beverage coolers, and refrigerators of all kinds in use. They are being discarded at the rate of 2 or 3 million a year, and each one could be a potential hazard for some unfortunate child. So, regardless of what might be done to newly built refrigerators, there are 50 million old ones to be dealt with right now. And, in our opinion, the most effective way to do this is with publicity programs, city ordinances, and State laws that will dissuade people from leaving discarded refrigerators around unless they have had the doors removed or otherwise have been rendered harmless.

Fortunately, as a result of industry programs sponsored by NEMA, and of the United States Senate Resolution 272 of the 83d Congress, 40 States have either enacted discarded-refrigerator legislation or are actively considering such legislation. I might mention at this time that one State—Tennessee, which already had an adequate discarded-refrigerator law, passed legislation during the 1955 legislative sessions similar to that proposed in H. R. 2181. I have been

advised that the impracticability of this new legislation is now being studied by officials of the State.

Meanwhile, the refrigeration industry has been waging an active and continuous educational safety campaign in cooperation with the National Safety Council.

More than 400,000 of its Safety Education Data Sheet No. 62 (copy attached) have been furnished by this organization to radio and television stations, appliance dealers, local safety councils, Boy and Girl Scout organizations and others interested in local youth safety activities.

More than 250,000 of the attached "Hidden Danger" posters have appeared on plant and school bulletin boards. Incidentally there are two of those. One is directed toward adult education, and one toward children education. A television short sound slide film has been released to and used by more than 400 television stations.

This year, the support of the campaign has been broadened through its adoption as a major safety effort of the National Congress of Parents and Teachers and its 38,000 local units. This campaign has proved very effective in making people conscious of the hazard of discarded airtight cabinets.

And now let us consider the second phase of the problem, that of allowing industry time for proper development work.

The refrigeration business is one that is very highly competitive and, of necessity, manufacturers have to keep improving their products to stay in business. No one can let the other fellow have an advantage on features, whether safety or otherwise, for very long. So there is plenty of incentive under our free-enterprise system to force manufacturers to work day and night on their engineering problems. However, development work takes time, and the problem at hand is not an easy one. It must be recognized that a solution might not only affect the door latch, but possibly the door gasket, electric controls, door design, or even the design of the refrigerator itself. For, it must be kept in mind, the safety feature may not be called upon to work until after 13 years, when the average refrigerator is discarded.

It must weather the storms of corrosion, abuse, moisture, and accidental damage. It must be so simple a child 3 years old can operate it. Yet, it must not affect adversely the efficiency of the refrigerator, for then we might close the door on one hazard and open a still larger one on another; namely, food contamination through improper refrigeration. If the present high standards of refrigeration were to break down, it could be much more deadly than the hazard we are talking about.

A number of possible solutions to the problem have been advanced. Each, including many of those developed by independent inventors, has been investigated exhaustively by the engineers in charge of refrigerator and freezer design, and has been found wanting. A technical analysis of the various proposals which have been considered is given in the attached appendix B. Careful consideration of this report will convince you that there is no practical solution immediately available for all types of household refrigerators and freezers. One company has introduced a wall refrigerator with a magnetic type of door closure. It has not been applied to all types. Speaking for

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my own company, we have under test now two different items. One we are hoping to apply strictly to household refrigerators, covering up to the 10 and 12 cubic foot sizes, and the other one for vertical freezers which have a heavier closing mechanism. So far our tests have proved it takes 22 pounds to open from the inside. It is a safety mechanism, but our engineers do not feel the solution is there yet, as far as small children being able to open the door. On the larger vertical freezer door, we have a target type of button which is an inside release, mechanical release, which you must find where the target is in order to properly open the door. That will operate with 15 pounds pressure.

We are going to continue our testing on those, endurance testing, corrosion, and door slam, and see what abuse will do.

Then there is cost considerations.

There is one other requirement—the safety feature must be within reasonable limits from a cost standpoint, and this is something that we should like to enlarge upon because we believe it is of public concern.

Certainly, there is no price that can be placed upon a human life. Yet people must continually weight cost against hazard. It determines the number of lifeguards on a beach—whether a railroad crossing should be elevated—the appropriations for national defense. And so it is with a refrigerator safety feature. Cost must be taken into account.

One device on the market was said to cost $5. Something similar was used for a short time by one manufacturer with an added cost to his product of $15 to $18. But, assuming for the moment, that a device costs $10 at retail and every manufacturer was forced by law to use it. Since it is estimated that an average of 6 million refrigerators and freezers will be sold yearly and it is 13 years before the average refrigerator is discarded, this means that the public would have to pay $780 million for the device—three-quarters of a billion—before it could begin to prove its value.

True, this is a hypothetical case, but it serves to illustrate the point that we had better be pretty sure of our ground before asking the public to pay such a tax for something that might prove a hindrance rather than a help.

Conclusions: The manufacturers of household electric refrigerators and farm and home freezers feel that the beneficial results from Senate Resolution 272, of July 1, 1954, and subsequent State legislation, as well as the intensive educational campaigns, are not yet apparent. Neither is it known what results will come from the research laboratories of the manufacturing companies.

Precipitous legislative action by the committee which would force the manufacturers of household refrigerators and farm and home freezers to incorporate into their design, mechanisms which their research has determined to be unsound, would, by creating a false sense of security, introduce hazards which do not exist today.

We beg the subcommittee to consider favorably the deferring of legislative action which might do irreparable harm to the public and to the industry.

(The documents referred to are as follows:)

APPENDIX A TO STATEMENT IN OPPOSITION TO H. R. 2181 REQUIRING INSIDE SAFETY LATCHES ON HOUSEHOLD REFRIGERATORS

MANUFACTURERS OF ELECTRIC HOUSEHOLD REFRIGERATORS AND FREEZERS REPRESENTED BY THE NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION

Admiral Corp., Chicago, Ill.
Avco Manufacturing Corp., Cincinnati, Ohio
Frigidaire division, General Motors Corp., Dayton, Ohio
General Electric Co., Louisville, Ky.
Hotpoint Co., Chicago, Ill.
International Harvester Co., Chicago, Ill.
Kelvinator division, American Motors Corp., Detroit, Mich.
Norge division, Borg-Warner Corp., Chicago, Ill.
Philco Corp., Philadelphia, Pa.
Quicfrez, Inc., Fond du Lac, Wis.
Seeger Refrigerator Co., St. Paul, Minn.
Westinghouse Electric Corp., Mansfield, Ohio

APPENDIX B TO STATEMENT IN OPPOSITION TO H. R. 2181 REQUIRING INSIDE SAFETY LATCHES ON HOUSEHOLD REFRIGERATORS

TECHNICAL AND DESIGN REQUIREMENTS FOR REFRIGERATORS AND FREEZERS BY THE NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION, JULY 20, 1955

The provision of an effective inside safety release on new refrigerators and freezers to protect small children that might become accidently locked in is essentially a design and engineering problem. The purpose of this material is to review the design requirements of refrigerator and freezer doors, gaskets, and locks, which are pertinent to this problem; also, to list some of the possible means of inside safety release and the technical problems presented by these methods.

Manufacturers have been fully aware of this potential hazard to small children and have devoted a considerable amount of research and engineering in an attempt to find a foolproof method of safety protection. To date, a satisfactory solution has not been found; manufacturers will, of course, continue actively their efforts.

Design requirements as to door seals

Household refrigerators and farm and home freezers are designed to preserve food safely and effectively. One of the necessary factors to assure their proper functioning is an airtight seal between the door and the cabinet. If the seal is not airtight, satisfactory temperature and humidity conditions for safe food storage cannot be maintained. In addition, an improper seal results in higher cost of operation to the user, generally unsatisfactory refrigeration, and, in extreme cases, spoiled food.

In discussion of refrigerator latches, there has been considerable discussion of the forces required to be exerted on the latching means to effect a safe and lasting airtight seal of the door against the gasket and cabinet. Figures have been quoted in the order of 6 to 10 pounds as the force required to open a door, and 40 to 90 pounds as the sealing pressure exerted by the door latch. Perhaps some further explanation is in order.

As shown by a recent poll of manufacturers, actual sealing pressures, currently used, are in the order of 40 to 90 pounds. This pressure is required to make sure that the gasket, which extends all around the rim of the door and seals against the edge of the opening in the case, is compressed sufficiently to maintain airtight contact all the way around, despite production variations in the plane of the door against the case, surface irregularities on the door, the case, or both, and variations in hinge settings and seal perimeters on varying sizes of doors.

The force necessary to open a door from inside is the difference between the force exerted by the latch and the resistance to compression offered by the gasket. For the reasons given previously, latch force must always be greater than theoretical sealing pressure. Since gasket resistance to compression decreases with life, and approaches a "dead" gasket, the force required to open the door of an old cabinet approaches the total force that can be exerted by the latch.

Attachment A is a survey of manufacturers, just completed by NEMA, which lists the door-sealing pressures of refrigerators and freezers currently in production. Attachment B cites the individual comments and notes provided by manufacturers' replies to this survey. This survey indicates that—

1. The doors of refrigerators and freezers currently produced are sealed shut by pressures of 40 to 90 pounds. The only exception is the very small refrigerators in the 5 to 7 cubic foot sizes where the sealing pressure may be as low as 22 pounds. These constitute a very small portion of current production.

2. A single-magnet latch would not provide a satisfactory seal. This has been suggested as a simple means of providing inside safety release, as a door held shut by a single magnet could be pushed open from the inside. Such a magnet could have no larger force than 10 to 15 pounds, or the door could not be opened readily, while 40 pounds or more should be provided for the airtight seal of the gasket. Thus, were an inside safety release to be devised, it would have to be by some other means.

Locks and latch mechanisms for household refrigerators and farm and home freezers

The lock mechanisms and hinges for practically all refrigerators and freezers manufactured in the United States are made by companies which specialize in this type of product. The types and designs of locks and hinge mechanisms, however, are engineered and developed by the refrigerator manufacturer, or by the lock supplier, or by the combined efforts of the two.

This means that engineering and technical know-how to produce satisfactory hardware is available not only to the largest refrigerator manufacturer but to the medium size and smallest manufacturers of refrigerators and freezers as well.

While refrigerator manufacturers in some cases would retain proprietary rights to particular designs, the ingenuity of the manufacturers of this equipment has been such that in the past desirable improvements have been available generally to the industry either through alternate designs, modification, or cross-licensing. Any latch mechanism incorporating a satisfactory inside release developed and adopted by one manufacturer would be followed immediately by similar devices in the products of others.

The first designs of electric refrigerators were equipped with simple mechanical latches which required effort on the part of the operator to close them tightly, and which, even then, produced only a mediocre seal, and were a carryover from ice-refrigerator practice. In order to maintain the proper distribution of low temperatures throughout the refrigerated compartments, improvements were made almost immediately.

Presently most all refrigerator latches are of the spring-loaded trigger-action type which close easily with a slight push, but which develop the required high sealing pressures. They seal tightly even when the door is slammed shut, but still open when very little force is applied to the outer handle, because of its system of leverages.

On the upright-type freezer, the latch performs similarly to that on the household refrigerator.

Chest-type freezers, with their large heavy horizontal lids, also require positive latching action. In many instances, freezers are equipped with latches which incorporate key-operated locks to meet the public demand for safeguarding their contents against theft—which further complicates any problem of providing inside release mechanisms.

When it became apparent that the discarded refrigerator or freezer represented a hazard to children, the manufacturers of latch mechanisms, as well as the refrigerator and freezer companies, started considering the possibility of providing an inside-release feature. Literally dozens of suggestions have been brought forward, and those showing promise have been actually made and tested. So far, however, none has met the requirements of long life and reliability which would warrant its adoption. This developmental work is continuing and has, of course, been accelerated during the past year as the seriousness of the situation has become more and more apparent.

It must be recognized that the conception, engineering, development, testing, tooling, and manufacture of any mechanism to meet precise operating requirements takes not days or weeks, but months or years. The present refrigerator latches and locks have been under development for 20 years or more. It must not be inferred, therefore, that the failure of the manufacturers to produce a suitable inside safety release is due to any lack of interest or application on

their part. The cold, hard fact is that they do not dare to incorporate into a product any mechanism not thoroughly proved.

The conventional type of latches used on modern refrigerators and freezers meet these somewhat conflicting requirements:

1. It must seal shut with a pressure of anywhere from 40 to 90 pounds.
2. It must latch positively and automatically whether the door is closed carefully or slammed shut.
3. Although it seals shut with a pressure of from 40 to 90 pounds, it must open when a force of not more than 5 to 15 pounds is applied to an outside handle.
4. It must operate without failure the hundreds of thousands of times, which represent a normal service life of 10 to 15 years or longer.

The solution of the problem presented by the possible addition of an infallible foolproof means for operating these latches from the inside presents much more of a problem than is immediately apparent.

Possible means of inside safety releases; technical problems involved

In addition to their study of means for developing inside-operated safety releases, manufacturers have given consideration to other methods of overcoming the danger of children being locked in refrigerator or freezer cabinets. These are summarized briefly.

1. *Means of keeping small children out of refrigerator or freezer cabinets.*—

(*a*) Fixed shelves—Comment: Fixed shelves, not readily removable by the owner, would eliminate flexibility in the use of the storage space. Users often wish to remove a shelf temporarily so as to store large single pieces of meat or other bulky food packages, or desire to shift the location of the shelves. Fixed shelves could not be removed for convenience in cleaning the cabinet interior.

(*b*) Some device to permit the door to be locked closed when the refrigerator or freezer is taken out of service—Comment: Such device would not provide automatic protection. The owner would have to remember to lock the door. Such a device would be of doubtful value. It would not prevent a child entering a cabinet in use.

2. *Means to render the door latch ineffective.*—

(*a*) An electrical device that would not permit the door to remain locked when the power was off—Comment: Even a momentary power interruption would cause the door to swing open. If it were not observed and reclosed promptly, the food in the cabinet would spoil.

(*b*) An electrical device that, when the electricity supply is disconnected or interrupted, would let the door stay closed; but would prevent it from latching a second time, if opened before power was restored—Comment: Unless such device had a manual reset, stored food would spoil if the owner inadvertently opened the door during a power failure, and could not latch it closed again until power was restored. While such manual reset device could be of a nature and so located as to be something which a child would not be likely to operate, any arrangement of this nature would require a great deal of extensive development and engineering before it would be suitable for mass production. It might be subject to service difficulties and not be reasonably effective. It would, however, eliminate the objection to 2 (*a*), because the refrigerator or freezer could be kept closed during the power stoppage even though the door had been opened after the circuit was deenergized.

3. *Means of providing ventilation or air supply to the storage compartments under abnormal conditions.*—

(*a*) Mechanical means for preventing the latch from functioning when any shelf is removed—Comment: A refrigerator so equipped could not be used with a shelf removed as is often desired by owners when storing large produce. Such device apparently would be complicated and unreliable. It could not be used in a freezer or in the freezing compartments of refrigerators where there are no shelves. It would not provide protection against entrapment where a refrigerator was discarded on its back with the heavy door uppermost.

(*b*) Mechanical means for blocking the door partly open when any shelf is removed—Comment: This would prohibit the storage in a refrigerator of large produce which would require the removal of one or more shelves. It could not be used in freezers having no shelves. While such a device would permit removal of shelves for cleaning, it probably would complicate the matter of replacing them. A simply designed mechanical device of this nature might be such that children intent on hiding in a refrigerator or freezer could reset it even though a shelf were removed, and so permit the door to be fully closed.

(*c*) A simple manual method of rendering the latch or striker ineffective when the refrigerator or freezer is taken out of service—Comment: Such a device would not afford automatic protection. The owner would have to remember to operate the device and know how to do so. Owners may now render discarded cabinets harmless by the simple operation of removing the striker or latch, or, preferably, the whole door.

(*d*) A plastic plug in the door of the refrigerator or freezer, or in the walls, which could be pushed out from the inside—Comment: Incorporation of this would present a thermal problem and make it difficult to maintain low temperatures, especially in freezers or freezing compartments. It is doubtful that a small child could find or push out such a plug.

If it pushed out easily, as would be required, the plug might be knocked out accidentally while the refrigerator or freezer was in use, creating a service problem. When the door was slammed closed, such plug might be forced out by pressure.

(*e*) A hole in the cabinet to furnish continuous ventilation—Comment: This is not practical since it would destroy the cooling efficiency of the refrigerator or freezer.

4. *Means for permitting the door to be opened by pressure from the inside.*—(*a*) Single magnet in place of latch—Comment: A magnet that provided a tight seal with a sealing pressure of 40 to 90 pounds would require considerable force to open the door. Good modern design provides latches that open when less than 15 pounds force is applied to the outside handle, instead of the 40 to 90 pounds force which would be required to be exerted to counteract directly the force which holds the door closed.

Even if this required force were reduced by adding an inside mechanical linkage to open the door, a magnetically latched door might not stay closed when it was slammed, as is common practice. A large magnet, sufficiently powerful to develop efficient sealing, would attract ferrous particles and might not operate properly without frequent cleaning. Magnet surfaces must fit very accurately to exert their maximum pull.

(*b*) Multiple magnets—Comment: So far as is known, only one manufacturer has produced and marketed refrigerators using a multiple-magnet closure. This refrigerator was taken out of production a few years ago because Government restrictions on the use of scarce nickel made it impossible to continue its manufacture.

(*c*) Mechanical inside release plate covering the inside of the refrigerator door—Comment: If such a release were designed to operate with only slight pressure, it would be so sensitive that the door would bounce open if slammed, or if some parcel of food fell against it. It is probable that such a device would be rendered inoperative by the user.

(*d*) Mechanical inside release latch—Comment: H. R. 7920 and H. R. 8170 would require such a "latch." Presumably, this would mean some type of handle or other device that could be pushed from the inside to open the door. The objections to such an inside latch are:

(1) There is a little assurance that an inside safety release would still be operable after 10 or 20 years, when the box is discarded.

(2) Such a device would be useless if the cabinet were discarded on its back or set in an unlevel location where the door would not swing freely.

(3) Freezers with top-opening lids would not be protected by such a device, as a small child could not lift the heavy lid.

(4) Such a device probably would not provide adequate protection as it is likely that a small child would become panicky on being locked in total darkness, and would not have the knowledge, strength, or ability to locate and operate such a device.

(5) Because only some of the shelves in discarded boxes might be removed, the child might be locked in a refrigerator where the remaining shelves would block any contact with the inside latch.

CONCLUSION

The technical and engineering problems involved in designing a satisfactory method of safety protection for new refrigerators and freezers have not yet been solved. The manufacturers will continue their efforts to solve these problems.

At this time, it is the firm belief of manufacturers that legislation requiring inside safety releases is not appropriate. Therefore, we respectfully urge that H. R. 7920 and H. R. 8170 be reported unfavorably by the House Interstate and Foreign Commerce Committee.

ATTACHMENT A

Manufacturers' survey—Door-sea'ir g pressures of refrigerators and freezers

	Company														
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
QUESTION 1															
What is the average sealing pressure of the units you are currently producing (expressed in pounds)?															
Refrigerators	60	40	85	80–85	50–60	45	60	48–55	58–90	55	62	22–50	------	50–60	30–70
Freezers	60	42	85	100–110	55–65	45	60	48–55	80–90	55	------	50–60	45	50–60	55–70
QUESTION 2															
Have these pressures (question No. 1) been determined (1) by design; (2) by actual test?															
By design	------	Yes	------	------	------	Yes	------	Yes	Yes	------	------	Yes	------	Yes	------
By actual test	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	------	Yes	------	Yes
QUESTION 3															
What sealing pressure is necessary to obtain an airtight seal for the door gaskets you use on current models of refrigerators and freezers (expressed in pounds)?	60	45	85	{See note}	25–70	40–51	40	48–55	------	55	45+	22	40–80	{See note}	30–70
QUESTION 4															
Are you using any door gaskets that would provide an airtight seal in actual usage with sealing pressures as low as 10 pounds?	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No

ATTACHMENT B

COMMENTS AND NOTES ON MANUFACTURERS' SURVEY OF DOOR-SEALING PRESSURES OF REFRIGERATORS AND FREEZERS

Company A: The 60-pound sealing pressure noted above is necessary to overcome inherent variations in structure and is somewhat misleading since a much greater pressure is necessary to open the door, due to the toggle construction of the mechanism.

Company B: Note that the answer to No. 1 is an average of several cabinet sizes while No. 3 is the pressure necessary for our largest current size. The above values are based on a requirement of 7 pounds per 20 lineal inches of gasket. We have found that this amount of pressure on the gasket is necessary to compensate for variations in flatness of both door and cabinet, particularly on cabinets with heavily loaded shelves on the doors.

Company C: Unless cabinet and door are absolutely flat, and gasket is completely uniform, sealing pressure must be built up on entire periphery to close lowest spot. In normal manufacturing it is impossible to maintain absolute uniformity of any surface as large as those encountered in refrigerators and freezers at a cost within the reach of the market we try to serve.

Company D: Referring to question 3, this would depend on flatness of door, diameter of gasket, design of gasket, flatness of shell sealing surface, etc.

Company E: In-out location of strike regulates amount of latch force utilized. The range noted item 1 was chosen as latch force necessary to seal most cabinets. Range of force noted item 3 is due to production variations in plane of door versus case, surface irregularities on door or case or both, hinge setting and seal perimeters on varying sizes of doors.

Company F: Door seal is not simply a function of the door gasket. To obtain low-sealing pressure many factors of cabinet and door flange face parallelisms are to be taken into account, as well as dimensionally controlled gaskets and fittings. A sealing pressure of 10 pounds may be a custom-built possibility, but probably productively impractical with present assembly fabrications. A complete redesign of adjacent and component parts with increased cabinet costs would be indicated and required.

Company G: Under question No. 1, 60 pounds is the average maximum pressure delivered by the latch mechanisms at optimum adjustment. Using averages again, a misadjustment of 0.050 inch will reduce the latch mechanism pressure to 40 pounds. It is difficult to maintain latch adjustments closer than this; therefore, a safety factor of 20 pounds is required. From experience, we consider 40 pounds as the minimum pressure suitable to assure a proper door seal, due to manufacturing variations in component parts.

Company H: The figures are determined by actual measurement.

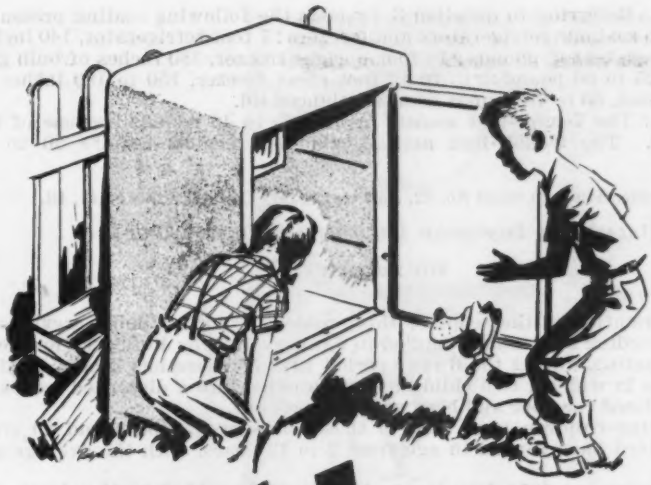
Company I: We express our sealing pressure in terms of force exerted by the latch mechanism.

Company J: Ten pounds may be on 20- or 30-year-old refrigerators with latch-type hardware. Even if 10 pounds were adequate a child pushing at middle of door would have to push 20 pounds. If one-fourth of the distance from the hinge side would require a 40-pound push, or at the hinge side a child would have to push several hundred pounds.

Company K: With our present knowledge we could not produce a satisfactory refrigerator with less than 40-pound force. During the past 2 years we have done considerable work with permanent magnets for door closing. We have found that they have not provided adequate closing force but we were able to provide a magnet large enough to hold a door closed after it was forced shut. Since the magnetic force is reduced in proportion to the square of the air gap between the magnet and the steel bar on the door, it will not provide closing force until the door is almost completely closed.

In order to provide a more satisfactory arrangement in our refrigerators and reduce service calls we have provided a mechanism which will provide full closing force over a range of about one-fourth inch. This permits closing against cabinet faces which are not flat and are frequently out of square. Even when this distance was approximately one-eighth inch we had considerable difficulty in the field with improper adjustment.

A magnet that would provide a holding force of 10 pounds when the pole shoe is in contact with the magnet face would provide almost no pull with one-sixteenth inch air gap.



Hidden Danger!

WARN CHILDREN *not to play in old refrigerators and freezers*

- THEY CAN'T GET OUT
- THEY CAN'T BE SEEN OR HEARD
- THEY CAN'T BREATHE

DESTROY YOUR DISCARDED REFRIGERATOR OR FREEZER!

NATIONAL SAFETY COUNCIL CHICAGO. • PRINTED IN U. S. A. S-0449-A

Company L: Referring to question 3, this was based on actual laboratory test when using a perfect gasket, true door and all sealing surfaces being ideal. It is felt that the average production door surface and gasket have sufficient tolerance as to require much greater latch pull in order to assure a satisfactory door seal.

Company M: On our current production of upright freezers, we are using a latch with an average sealing pressure of 45 pounds. Actually this is inadequate for our needs, and we are experiencing some trouble with sealing. On next year's model, we contemplate going to a latch with a minimum sealing pressure of 65 to 75 pounds.

Company N: Referring to question 3, by tests the following sealing pressures are required to seal our refrigerators and freezers: 7 foot refrigerator, 140 inches of single bulb gasket, 45 pounds; 18 foot upright freezer, 180 inches of bulb gasket with lip, 25 to 30 pounds; 13 to 16 foot chest freezer, 150 to 180 inches of single bulb gasket, 60 to 70 pounds counterbalanced lid.

Company O: The 7-cubic-foot models require 30 to 40 pounds because of the smaller doors. The 9-cubic-foot and 11-cubic-foot models require 50 to 70 pounds.

[Safety education data sheet No. 62, National Safety Council, Chicago 11, Ill.]

Hazards of Discarded Iceboxes and Refrigerators

THE PROBLEM

Deaths since 1948

1. Full information of the scope of this problem is not available previous to 1948. But according to a table compiled in January 1954 by Refrigeration Service and Contracting, during the 6 year period 1948–53 there has been a total of nearly 50 cases in which 1 to 5 children have crawled into a discarded icebox or refrigerator, closed the door and been unable to get out.

2. Seventy-nine children have died in these incidents, 59 boys and 20 girls. Children involved have ranged in age from 2 to 12 years, with the average age being 5 years.

3. During February 1954 two more children were added to the death toll resulting from this hazard.

4. While this toll is not statistically high, its potential seems to be increasing percentagewise annually. For example, there were twice as many reported deaths from suffocation in discarded refrigerators during 1953 as there were during 1952. Moreover the number of deaths per incident is increasing. In 1953 just 4 cases involved 12 children. In one of these cases 5 children from a single family were victims.

Statistics on discarded refrigerators

5. There are more than 50 million iceboxes, refrigerators, freezers and other such airtight cabinets in use today. They are being discarded at the rate of approximately 2 to 3 million a year.

6. Once discarded, these refrigerators and other airtight containers make inviting places for games by small children.

7. It is now estimated that the number of discards will continually increase over the next few years.

8. Heretofore many of these discarded iceboxes and refrigerators have been small in size. This lessened the probability of a child's crawling into one of them.

9. However, families, are purchasing new refrigerators and freezers in increasing number now. This increased purchase is occasioned by many factors, including the desire for new boxes with freezing compartments. What is more important, the old refrigerators these new purchasers are discarding are larger in size than those discarded in previous years.

10. Temporary housing, now abandoned, has also stepped up the number of such discarded iceboxes, refrigerators, and other airtight cabinets.

11. This means that there are both more and more inviting discarded refrigerators and freezers for children to crawl into today.

CIRCUMSTANCES

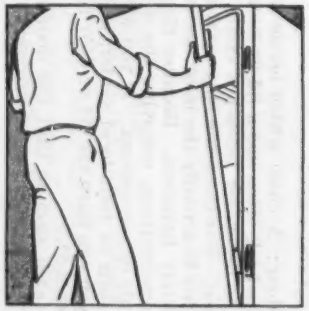
Critical time of year

12. May through September have proved to be critical months. During this period children have leisure vacation time for outdoor play * * * and discarded airtight cabinets with locks or hinges intact provide enticing hiding places.

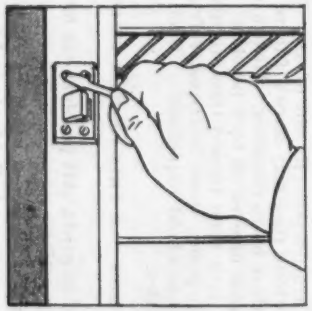
How do children get involved?

13. Children become locked in iceboxes, refrigerators, freezers, and other airtight cabinets for many reasons. Some are just exploring or hiding from other children; they crawl in voluntarily. Others are put into these compartments by older children as "part of a game." Still others are locked in through definitely malicious intent of older boys and girls who want to scare these younger children for one reason or another.

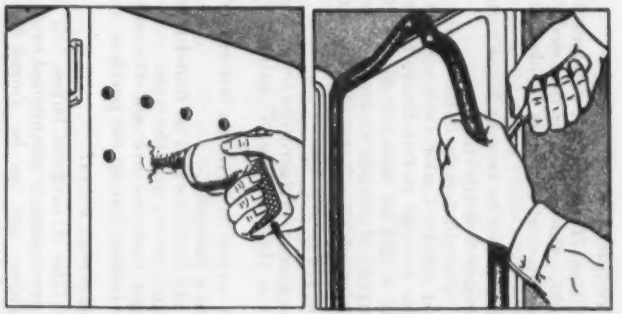
TO MAKE DISCARDED REFRIGERATORS HARMLESS FOLLOW THESE SIMPLE PROCEDURES * * *



1 *REMOVE THE DOOR. It's the best way to make airtight cabinets safe.*



2 *REMOVE THE LATCH STOP by removing the screws from plate.*



3 *DRILL HOLES IN THE CABINET AND REMOVE THE GASKET. These easy operations together but not singly will unseal box and allow air in.*

Why are such discarded cabinets dangerous?

14. One essential condition of an icebox, refrigerator, freezer, or other such cabinet is that it be airtight. Once the door is closed * * * which automatically latches it * * * whatever amount of air is inside the box will be exhausted in a relatively short time.

15. Meanwhile, the child cannot be seen or his screams heard from the outside. The refrigerator then becomes a death trap.

16. Moreover a closed, airtight box is dark inside, increasing the amount of terror felt by the trapped child. Under such conditions he will scream, pound on the door, and otherwise attempt to free himself, even though it is of no avail. In other words, when it would be best for him to lie as quietly as possible, conserving the limited supply of oxygen as much as possible, the terror-stricken child is engaged in activities which exhaust the air in the box even more quickly.

Why are iceboxes "abandoned?"

17. Persons who purchase new refrigerators today find that many dealers * * * even those who have given them "trade-in" value * * * have no use for their old boxes.

18. It is costly for the owner to have his box carted away. And the box has little resale value, even to a junkman.

19. As a consequence, old iceboxes can be found today in backyards of homes, in basements, garages, dump yards, and the like.

20. Moreover abandoned iceboxes are not the only hazards. At least one child suffocated in a new freezer left on the porch of a home prior to installation.

What are the types of dangerous boxes?

21. For the most part the dangerous boxes fall into these classifications:

(*a*) Those which are definitely abandoned or discarded because they have no further use. These are to be found * * * by children, unfortunately * * * in vacant lots, basements, garages or barns, on dumps, and the like.

(*b*) Those which are temporarily out of use. These have been set aside by homeowners who think they may have a future use for them, may be able to sell them or pass them on to relatives. Meanwhile, the boxes are "stored" in basements or garages, or even on back porches.

(*c*) Those which have been turned into storage chests. No longer used for their original purposes, these iceboxes, refrigerators, or freezers now hold tools or other household implements. Such chests are usually found in farming communities.

HOW CAN THIS PROBLEM BE SOLVED?

Community action

22. As with many other hazards, this problem can be solved through immediate and continued community action.

(*a*) There can be a conscious effort to dispose of these empty boxes, whether by former owners as individuals or by community groups.

(*b*) There should also be conscious assumption of individual and group responsibility in the community to see that such boxes, when present, are made harmless.

How do you make discarded refrigerators harmless?

23. Discarded iceboxes, refrigerators, freezers and other airtight cabinets can be rendered harmless in several ways:

(*a*) Remove the door: A chest which opens from the top or a large refrigerator lying on its back often has a lid or door so heavy that (even with the latch removed as described below) a child trapped inside would not be able to push it open. For these the only answer is to take the lid or door off altogether, and this is actually the most desirable way to make any airtight cabinet completely harmless. Because there are a great variety of hinges and hinge constructions, removing the door may often require the services of a mechanic or serviceman. If you will contact community service representatives such as your local dealer, utility service engineers, and like organizations, you can have the lid or door removed at little or no cost. If the door is not removed,

(*b*) Remove the latch stop so that the door cannot lock. This can be done on nearly every type of icebox or refrigerator by merely removing the

screws from the plate. Moreover, the operation can be easily performed by anyone who can use a screwdriver. This is particularly effective for making harmless those boxes with a door which opens on the front side. Even so, it would be wise to:

(*c*) Drill holes in the cabinet and remove the gasket: Metal drilling tools are usually available in any neighborhood for drilling holes. The gasket (a rubber strip around the door which acts to seal the door to the frame when it is closed) can be pried loose at one end of the door and pulled off with little or no trouble. These operations together, though not singly, will unseal the compartment and allow air into the box. If a child then closes himself into this box there will be a longer period in which he can be discovered alive.

(*d*) Destroy the box altogether: Schools and civic organizations might well spark a community program which offers trade associations, local cartage companies, or other business groups the opportunity regularly to search out such abandoned refrigerators, freezers, and the like, cart them away, and destroy them entirely.

Suppose the cabinet is only temporarily out of use?

24. Where it is intended that the cabinet be used again at a later date, it can be rendered harmless for the period in which it must stand idle.

(*a*) The latch stop can be removed, as described above, and the stop and screws dropped into a bag which can be attached to the refrigerator, freezer, or airtight cabinet for safekeeping until needed again. You might also, or otherwise:

(*b*) Move the refrigerator so that the door is against the wall: Most such boxes are too heavy for small children to push around. With the door against the wall the children will not be able to get into the box.

(*c*) Tie a wire or stout rope around the icebox, refrigerator, or freezer.

(*d*) Where handles are so constructed, padlock the cabinet or refrigerator.

Legislation

25. A secondary approach to this problem is through legislation, either city ordinance or State law. The following model law on abandoned refrigerators has been drafted by the Refrigeration Service Engineers Society. Community action will speed its passage in your locality:

"Anyone who abandons, discards, stores, or keeps in any place accessible to children, or who, as the owner, lessee, or manager, permits to remain on his premises under his control, a refrigerator, icebox, freezer cabinet, or similar container, of a capacity of 1½ cubic feet or more, which is no longer used for refrigeration purposes, without the attached doors, hinges, lids, or latches being removed, is guilty of a misdemeanor and shall be punished by fine of not more than $50, or by imprisonment for not more than 30 days, or both."

26. This law will not by itself prevent such accidents, however, and in any case it is likely to impress itself upon the community only after one or more children have lost their lives and negligent owners have felt its force. An important phase of any program of community action must include:

Information and instruction for parents and owners

27. Owners should be alerted through every means available to the hazard of discarded refrigerators and to their personal responsibility to make such cabinets safe. Such a program of community education should utilize newspaper, radio and television publicity, parent-teacher programs and publications, school newspapers, as well as door-to-door canvass by service organizations.

28. Parents should be alerted to the hazards which may lie in their own backyards and should be made aware of their responsibility for:

(*a*) Knowing where their children are playing.

(*b*) Providing safe places for their children to play in.

(*c*) Instructing their children in what are safe and unsafe places for play.

Instruction for the children

29. Instruction for children involves:

(*a*) Activity by the children to help in removing the hazard.

(*b*) Activity in avoiding the hazard.

30. Older children and youth groups can take a real responsibility for noting and reporting any such dangerous discarded or other unused airtight cabinets to their parents and to other responsible individuals.

31. Older children can also work with the community program to ferret out and dispose of such hazards, taking part in a door-to-door canvass, passing out literature, and the like.

32. Younger children, more often the victims of this hazard, can be reached primarily through instructions to parents which set forth the hazard, describe the remedies, and call attention to the need of constant supervision. However, older children, taught at school to recognize the hazards of such unused and airtight cabinets, can also assume some responsibility for younger brothers and sisters at play.

Information sources

33. Further information is available from:

Safety Education Data Sheet No. 48, Unauthorized Play Spaces, National Safety Council, 425 North Michigan Avenue, Chicago 11, Ill.

The Household Refrigerator and the Farm and Home Freezer Sections of the National Electrical Manufacturers' Association, 155 East 44th Street, New York 17.

The Refrigeration Service Engineers' Society, 433 North Waller Avenue, Chicago 44, Ill.

Your local safety council or chapter of the National Safety Council.

Other safety education data sheets now available are:

(1) Bicycles
(2) Matches
(3) Firearms (Revised)
(4) Toys and Play Equipment
(5) Falls
(6) Cutting Implements
(7) Lifting, Carrying and Lowering
(8) Poisonous Plants
(9) Electric Equipment
(10) Pedestrian Safety
(11) School Buses
(12) Flammable Liquids in the Home
(13) Passenger Safety in Public Carriers
(14) Chemicals
(15) Hand Tools
(16) Nonelectric Household Equipment
(17) Sidewalk Vehicles
(18) Camping
(19) Alcohol and Traffic Accidents
(20) Cooking and Illuminating Gas
(21) Solid and Liquid Poisons
(22) Safety in the Gymnasium
(23) Laboratory Glassware
(24) Places of Public Assembly
(25) Fireworks and Blasting Caps
(26) Domestic Animals
(27) Swimming
(28) Small Craft
(29) Play Areas
(30) Winter Driving
(31) Night Driving
(32) Winter Sports
(33) Traffic Control Devices
(34) Safe Conduct in Electrical Storms
(35) Poisonous Reptiles
(36) Motor-Driven Cycles
(37) Animals in the Classroom
(38) Railroad Trespassing
(39) Bad Weather: hazards, precautions, results
(40) School Parties
(41) Home Workshops
(42) Horseback Riding
(43) Hiking and Climbing
(44) Hook and Line Fishing
(45) Summer Jobs—Farm
(46) Safety in the Woodshop
(47) School Fires
(48) Unauthorized Play Spaces
(49) Bathroom Hazards
(50) Safety in the General Metals Shop
(51) Safety in Pupil Excursions
(52) Highway Driving: rules, precautions
(53) Safety in the Machine Shop
(54) Summer Jobs
(55) Motor Vehicle Speed
(56) Welding and Cutting Safety
(57) Safety in the Auto Shop
(58) Winter Walking
(59) Safety in the High School Chemistry Laboratory
(60) Safety in the Farm Mechanics Shop
(61) Floors in the Home

Original national distribution of this data sheet made possible through the cooperation of the household refrigerator and farm and home freezer sections of the National Electrical Manufacturers Association.

For more information about the additional data sheets listed above, write the School and College Division, National Safety Council, 425 North Michigan Avenue, Chicago 11, Ill.

Mr. HAUSFELD. Mr. Chairman, I have with me today, 2 representatives of the National Electrical Manufacturers Association, Mr. Benson and Mr. Price, and 2 technical representatives of the major refrigerator manufacturers, Mr. Yoxsimer of Westinghouse, and Mr. Saunders of Frigidaire. With your permission, if you have tech-

nical questions, I would like to have those directed toward those people as well as myself.

Mr. CARLYLE. Would you ask them to come up and sit at the table with you?

Would you give us your names, please?

STATEMENTS OF O. H. YOXSIMER, MANAGER, REFRIGERATOR ENGINEERING, ELECTRIC APPLIANCE DIVISION, WESTINGHOUSE ELECTRIC CORP., MANSFIELD, OHIO; JOHN S. SAUNDERS, SUPERVISOR, FUTURE PRODUCTS DESIGN, HOUSEHOLD REFRIGERATION DEPARTMENT, FRIGIDAIRE DIVISION, GENERAL MOTORS CORP., DAYTON, OHIO; LESLIE D. PRICE, MANAGER, ENGINEERING AND SAFETY REGULATIONS DEPARTMENT, NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION, NEW YORK CITY; AND DONALD BENSON, MANAGER, SECTION SERVICE DEPARTMENT, NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION, NEW YORK CITY

Mr. YOXSIMER. My name is O. H. Yoxsimer, with Westinghouse.

Mr. SAUNDERS. My name is John Saunders, from Frigidaire, of Dayton, Ohio.

Mr. PRICE. My name is Leslie D. Price, manager of the engineering and safety regulations department, National Electrical Manufacturers Association.

Mr. BENSON. My name is Don Benson, president of the section service department of NEMA.

Mr. CARLYLE. All right, are there any questions?

Mr. ROBERTS. I would like to ask this question:

Did you testify in the hearings on S. 2876 and S. 2891 before the subcommittee?

Mr. HAUSFELD. I did not.

Mr. ROBERTS. I believe Mr. Saunders testified, and Mr. Yoxsimer testified, and also Mr. Price.

Mr. PRICE. I submitted written testimony, Mr. Roberts.

Mr. ROBERTS. I am sorry, I did not get the other gentleman's name.

Mr. BENSON. My name is Benson, sir. I did not testify in the other hearing.

Mr. ROBERTS. Now, Mr. Benson, what is your connection with the industry?

Mr. BENSON. I am the secretary of the section service department of the trade association and in this department we carry on the technical and standards activities of the National Electrical Manufacturers Association. The household refrigerator section and the farm and home freezer sections are two product sections within the association.

Mr. ROBERTS. Mr. Hausfeld, I am quite interested in the statement that you made, and I certainly want to compliment you on its preparation. However, I do heartily disagree with you on your first premise, and that is to make refrigerator users more responsible. I would like to ask you a few questions along that line.

You mentioned several of these safety campaigns and safety activities, and Boy and Girl Scout activities, and radio and television activities, and appliance dealers, and local safety councils, and your "Hidden danger" posters at plants and at schools.

You would not tell this committee that that offers much hope as far as the little children are concerned, would you?

Mr. HAUSFELD. I also mentioned there were two posters, one directed toward children and the other directed toward adults. We feel it is up to the adults to properly tell their children the hazards of abandoned refrigerators and freezers. We think it is definitely a program of education, and this year we will find out.

Mr. ROBERTS. How do you explain the fact that deaths are on the increase and have been practically every year since about 1952, even though these safety campaigns have been going on during that time?

Mr. HAUSFELD. Probably not as extensively as they have last year.

Mr. ROBERTS. What is your answer?

Mr. HAUSFELD. They are not as extensive. The campaigns haven't been as extensive in the past years.

Mr. ROBERTS. Do you take the position that the campaigns are the answer to this problem?

Mr. HAUSFELD. No, sir; as an engineer I feel that there is an answer. All I say is that we need time to find it and to work it out.

Mr. ROBERTS. And you take the position, I would assume from that last statement, that the industry is capable of finding the answer to this problem?

Mr. HAUSFELD. We have some very wonderful engineers in the refrigeration industry and if given the time, they will come up with an answer.

Mr. ROBERTS. The reason I asked about your appearance before the Senate committee was that I am under the impression from reading the hearings on the Sparkman bill and on the Mansfield bill, that there was a questionnaire sent out to the leading manufacturers as to how much or what was the minimum amount of pressure that had to be developed to prevent spoilation of food. Have you read that report?

Mr. HAUSFELD. I have read an inquiry asking for the amount of pressure required to seal doors.

Mr. ROBERTS. At that time I believe, most of them hit at a minimum of about 40 pounds pressure.

Mr. HAUSFELD. That is very misleading, because you must analyze the size of the cabinet you are talking about. It would be better to ask them how much force do you need per linear foot or some increment of pressure, because it varies so much from the small cabinet to the big cabinet.

Mr. ROBERTS. I am simply asking about the result of that questionnaire. I am not asking for your opinion as to how misleading it might be. I would like an answer to the question as to the average that the questionnaire to the manufacturers showed.

Mr. HAUSFELD. There is a copy of that in the appendix of the report I have just read.

Mr. ROBERTS. We can supply that later. However, I believe in your prepared statement you said that your engineers had now been able to find that sufficient closure could probably be had at 22 pounds.

Mr. HAUSFELD. Sir, that was to open the door from the inside, it required 22 pounds pressure.

Mr. ROBERTS. What was the 15-pound figure?

Mr. HAUSFELD. That is another type of mechanical latch that has a target, and operates very similar to a door handle, about the same

required to open the door would be required to open the door from the inside as from the outside. But the other attachment which is a different principle, you have to push on the inside of the door panel. That force is taken adjacent to the handle, and if you moved over to the center of the door or to the hinge side, the force would go up proportionately, and it would be increased considerably more. We don't feel that 22 pounds is quite the answer, and we would like to get it down to 15 or 10 pounds.

Mr. ROBERTS. Going back to this, they have handed me this manufacturers survey, which was attached to your statement.

How much inside pressure in your opinion could be developed by a small child trying to escape suffocation in a closed box?

Mr. HAUSFELD. It is a difficult question to answer.

Mr. ROBERTS. There would be different ages and different strengths.

Mr. HAUSFELD. I repeat, in our engineering thinking, we would like to have a mechanism operate on 10 to 15 pounds, and we feel that that would be suitable for most cases.

Mr. ROBERTS. Do you think that that would offer the greatest hope of escape to the child?

Mr. HAUSFELD. If the child fell against it, it would be enough to open it. That would be true if he just fell toward the door.

Mr. ROBERTS. Do you have any opinion of your own as to how long it will take the industry to come up with the answer to this problem?

Mr. HAUSFELD. I can speak for my own company, we have been diligently pursuing this for 2 years now, and we have two different types of mechanism underway, but our engineers still don't feel we have the answer. Now, when I say it takes time, we must consider that some features on refrigerators, it took 4 to 5 years to perfect. To answer your question just timetablewise, I do not know. If you give us the time, we will lick it.

Mr. ROBERTS. How long has the industry been working on this problem?

Mr. HAUSFELD. Two years in our company.

Mr. ROBERTS. Well now, of course, these deaths have been going back considerably beyond that period, have they not?

Mr. HAUSFELD. That is true, but we didn't start production until 1949 in our company.

Mr. ROBERTS. In your company?

Mr. HAUSFELD. That is right.

Mr. ROBERTS. Certainly I wouldn't make you responsible for any more than your own company, but as a matter of common knowledge, these deaths have been occurring for the last 10 to 15 years haven't they, or even before that?

Mr. HAUSFELD. Yes, even in the icebox days.

Sir, you may want to direct some of your questioning to Mr. Yoxsimer or Mr. Saunders of Westinghouse and Frigidaire. Perhaps they would like to comment on it.

Mr. ROBERTS. I think that I have asked all I would like to at this time, and I would like to reserve the right to further question.

Mr. CARLYLE. We have the representative of the International Harvester Co. here, and Mr. Saunders is a representative of designing of household engineering for Frigidaire.

Mr. SAUNDERS. That is right.

Mr. CARLYLE. Would you like to make any comment?

Mr. SAUNDERS. I would like to add this comment, that Frigidaire has taken a very active program on the designing what we call, or talk about here, as a safety latch. We have a design which we don't feel is a design that is completely foolproof. That is from the standpoint of being active 13 years from now. There are a lot of things that you have to consider as pointed out by Mr. Hausfeld, certain things take place in mechanical mechanisms. We have been confronted with this problem, that if this is called a safety device, we feel that we have to stand in back of it as a safety device. Whatever we introduce to the public must be considered a foolproof device.

Mr. CARLYLE. In other words, you think if you undertake to put this so-called safety device on your refrigerator, your responsibility would become greater?

Mr. SAUNDERS. I would think so. The way this law reads to me, if it is passed, who would take the responsibility? That is whoever makes the refrigerator.

Mr. CARLYLE. You mean legally and morally?

Mr. SAUNDERS. Yes; now, I would like to ask this question: You gentlemen have had an opportunity of seeing a mechanism demonstrated, and would you consider a mechanism of that sort completely satisfactory from a safety standpoint?

Mr. DIES. I would not, and I will tell you why. I do not believe you can come up with an absolute answer. The reason I would not consider it in the first place, is that the child could get into the bottom, and it would not operate. It would have to be where the shelf was disturbed. Suppose a child got in there, and of course, if the shelf is removed, the door would not close. But a curious child getting into everything, could conceivably get in there and get under the bottom shelf and there would be no release.

So you get right back to the proposition that I doubt seriously that you can have an absolute foolproof device unless you gentlemen can come up with something that is very clever, where the presence of a human being in the icebox would cause the door to open or something of that sort. That is completely beyond my comprehension.

What I am curious about is this: If you could come up with some device, and I know there are handicaps and difficulties, but if you could come up with some device which might not be absolutely foolproof at all, but would reasonably contribute materially toward safety, that would be helpful. You are not going to fix something where a child cannot hurt himself. They are going to hurt themselves in a bathtub, or they get their head in something, and anyone who has reared a family knows what a problem it is. But still it is our duty to take every reasonable precaution we can to do it.

Naturally, if you have to have a device that will double the price of refrigerators, it puts you out of business. But couldn't you come up with something that, instead of just striving for absolute perfection, would be reasonably prudent, and reasonably effective?

Mr. SAUNDERS. There is no question that we can, and in fact your observation of that mechanism there, I would like to compliment you on. I think that is a typical analysis that an engineer would make. That type of thing there, there are too many other places in the refrigerator that the child would get into.

Mr. DIES. That would not work on a heavy commercial type of refrigerator, I presume.

Mr. SAUNDERS. I would like to say that we have a mechanism and we are not to the point where we feel that we could guarantee that it would be 100 percent operative after 15 years. That is because of the materials situation. We have taken another approach which in effect would make the door inoperative when the power is off. In other words, when the refrigerator is out of use, it would not be a safety devise when the refrigerator is in use.

Mr. DIES. You cannot anticipate everything. After all, mothers and fathers have to watch children all of the time, and you are not going to fix anything that a mother can go off to a bridge party and leave her child at home. I mean we have to look at this thing intelligently.

Mr. ROBERTS. I think we have a situation in connection with the Salk vaccine. The laboratories have never advertised that as being 100 percent effective, and no vaccine that has ever been produced has proven to be 100 percent effective.

I think parents understand when they are having the child vaccinated that they are taking a serious chance. But all we can go on is on the best authority that we have, and the best brains that we have.

Mr. DIES. Couldn't you gentlemen in the industry come up with something. This thing of passing legislation is a difficult thing, and it is easy for us to sit up here and try to figure out words, but when a fellow has to manufacture the product and sell it, it is quite a different thing.

Now, couldn't the industry agree on some reasonably economical device that may not be 100 percent foolproof or anything of that sort, but couldn't you take the initiative and say, "Now, here is what we have come up with, the very best under the circumstances."

There is a strong sentiment all over the country, and if there are a few more deaths, the sentiment will increase. The first thing you know pressure is going to be such that some committee is going to come out with a restrictive thing which might be a great handicap to you in your business. Whereas if you recognize the presence of this problem, and the need for something reasonably effective, and come up with it and say, "Now here it is. This is the best we can do. This is economical and is not going to increase the cost materially, and does provide some reasonable protection."

I have a deep well on my ranch. I found it out there and I do not know where it started. Evidently some years ago someone dug it. There it was, and it was down there about 80 or 90 feet. And I said, "Suppose a child would fall in there—it would be bad."

I went out there and put a fence around that well. That did not guarantee that a child would not get in there. But I did the best I could to make a reasonable precaution.

That is an illustration of what I am talking about in this device.

Mr. CARLYLE. Mr. Saunders, it seems to me that if the gadget that you have been working with, or that you describe, if that will not work when the electricity is off, then it would not protect the child at the times when most of the damage is done.

Mr. SAUNDERS. You misunderstood me there. The actuation of the gadget is accomplished by turning off the electricity.

In other words, with the electricity off, the door will not close. The door latch is inoperative. It is only when the refrigerator is used in your home and you have food stored in it, with the thing plugged into the electricity, that the latch operates as a latch.

Mr. DIES. When the woman wants to defrost, and cuts off the electricity, and leaves the refrigerator, that would be the dangerous period when it becomes inactive?

Mr. SAUNDERS. If she pulls the plug from the wall.

Mr. DIES. That is in the majority of instances. Most of these accidents have happened when they were defrosting the refrigerator, when they abandon it.

Mr. SAUNDERS. There is another aspect to the way the bill reads, which takes down to 2 cubic feet.

Mr. ROBERTS. That is not in the bill. You are thinking about the Tennessee State law. This bill does not have the requirement of that kind.

Mr. CARLYLE. Now, we have one other witness.

Mr. HESELTON. I noticed in your formal statement, Mr. Hausfeld, you made two points as to a more practical solution, and to allow industry time for proper development work. I have read your statement rather hurriedly. I want to compliment you on it because I think that you have pointed out the good faith and intelligent action which has been taken to date. But it occurs to me that if you just leave that up in the air, time for proper development, you are not helping the committee very much. Can you indicate with any degree of certainty how much time would be required for that work?

Mr. HAUSFELD. You are speaking about coming up with a solution, or just a partial solution?

Mr. HESELTON. I am referring to your statement, "to a more practical proper solution."

Mr. HAUSFELD. As I have said, the element of time is hard to control. During the last year the development work—and I am speaking for my own company—we can see progress being made. If we continue to make the same amount of progress this year as we made last year, we will have a better solution. What we have today will give you what you are asking for, but as an engineer I am saying that it is faulty, and it is not the security you want. You have an inside latch, but the children cannot operate it. It takes too much pressure. We believe there is a solution to it and we are striving for the time to get a solution.

Mr. HESELTON. The second question is with reference to appendix A, where you list 12 manufacturers. Are there more manufacturers in the country than these 12?

Mr. HAUSFELD. Oh, yes, they are not members of the National Electrical Manufacturers Association.

Mr. HESELTON. They are not members of the association?

Mr. HAUSFELD. No.

Mr. HESELTON. Approximately how many manufacturers are there in the country?

Mr. HAUSFELD. Will you direct that to Mr. Benson?

Mr. BENSON. The group that is listed here produced about 85 percent of the refrigerators in the country. There are probably around 16 or perhaps 18 refrigerator manufacturers. There are a great many more brand names than that.

Mr. HESELTON. You mean 16 or 18 in addition to this number?

Mr. BENSON. No; all together, sir.

Mr. HESELTON. I read your bulletin here from the National Safety Council. That is No. 4. It indicates that—

while this toll of death is not statistically high, its potential seems to be increasing percentagewise annually.

It points up the importance of this problem, and the increasing importance of it, as you pointed out, the amount of research that has been done.

I want to go back to the statement that I made earlier. I think you heard it.

There was the problem of flammable fabrics. There was a cooperative effort on the part of industry, and on the part of the Bureau of Standards, and on the part of people who are capable of handling it. I am sure that none of us hold ourselves out as experts in any sense of the word. The question for us is how this can be done, and what the difficulties are.

First, has there been any consultation with the Bureau of Standards or any other Government agency as to this problem, as to possible solutions?

Mr. PRICE. There has been no consultation by the association. Whether any of the individual companies have consulted with the National Bureau of Standards or not, I do not know.

Mr. HESELTON. May I ask this question then? Would you feel that anything was to be gained by initiating a consultation or a conference with such a group?

Mr. PRICE. Certainly nothing would be lost, and I am sure that the members of the sections would be very pleased to participate in such a conference.

Mr. HESELTON. Speaking individually, I hope you will initiate something like that, and I hope it will be fruitful. I compliment you all on your statements.

Mr. CARLYLE. Was it your request that appendix B also be inserted in the record?

Mr. HAUSFELD. Yes. That is the one that ties in with the other statement.

Mr. DIES. What would it cost to have the device that you mentioned, namely, that when the refrigerator was in operation the door would open and shut, but when it was not in use that it would not operate. What would it cost?

Mr. SAUNDERS. The cost that we anticipate, and I should not say anticipate, but it is our figured cost of the device I am referring to, would be in the neighborhood, to the customer, of around $4.

Mr. DIES. Why doesn't your industry or your group get together and see what you think is the most feasible device up to date that you could agree on? Certainly I believe that the average customer would pay $4 more for that safety feature and would be glad to do it. That is about as far as you can go now. Later on, perhaps 5 years from now, if you come up with something better it could be changed to that, and it would be better for you gentlemen to perfect something and agree on it and let us amend the bill so as to have the proper language rather than have us make a stab in the dark.

That would be my suggestion, that you gentlemen get together and maybe confer with the Bureau of Standards if you want to, but come

up with what is not an absolute foolproof device, and not something that you can say, "This will guarantee safety," because you cannot do that now, but you can say that this is the best that we can do to promote safety. Why would that not be a reasonable solution, and have the committee work with you, and cooperate with you? We all can work together, rather than have us try to pass a bill that might harm the industry and at the same time might not do what we are trying to do.

Mr. PRICE. Mr. Chairman, may I ask a question and pose just one other problem?

This matter of reasonable safety is fine, and I think that we can assure the committee that we will immediately take steps to meet with the Bureau of Standards to investigate this problem. We, of course, at the same time have to be fully aware of the antitrust laws, as a matter of agreement. I think that can be handled adequately and properly.

There is one major question and one major problem that I think perhaps is in the back of many of the minds of the manufacturers, and that is this matter of liability. That is not only the moral liability, but the probability and the possibility of suit as a result of a child becoming suffocated in the box that is fitted with a safety device.

Mr. DIES. You would not be liable if this device is put out not as an absolute safety device, but as something else.

Mr. PRICE. In other words, your opinion is that the stressing of this reasonable safety is something?

Mr. DIES. That is what you have to stress, and there would have to be a statement in connection with it that the companies do not guarantee it as being an absolute safety device, and just describe what it is. If it is designed solely that when the power is not in use, if you agreed on that as being the best, simply advertise it as such. That is the extent of your liability.

Mr. CARLYLE. We will hear from Mr. Pratt at this time.

STATEMENT OF JOHN H. PRATT, COUNSEL FOR THE AIR-CONDITIONING AND REFRIGERATION INSTITUTE, WASHINGTON, D. C.

Mr. PRATT. I have a prepared statement that will take me about 6 minutes to read. I would like to read it.

Mr. CARLYLE. Would you proceed?

Mr. PRATT. My name is John H. Pratt, a lawyer, with offices at 905 American Security Building, Washington, D. C. I appear as counsel for the Air-Conditioning and Refrigeration Institute, hereinafter referred to as ARI. This organization is a trade association consisting of over 170 manufacturers of air-conditioning and refrigeration equipment. Many of our member companies are also members of the National Electrical Manufacturers Association, which has appeared here today.

H. R. 2181 is similar to two bills which the committee considered last year—H. R. 7920 and H. R. 8170. They all have the same ultimate purpose, namely, to prevent death to small children by making it unlawful to ship in interstate commerce certain household appliances, unless the same are equipped with a door-closing device which enables them to be opened easily from the inside. Despite the laudable pur-

pose of these proposals, ARI opposed these as well as opposes the present bill, H. R. 2181, for two principal reasons:

1. The present problem involves, for the most part, abandoned or discarded refrigerators, and the proposed bill, as I will attempt to show, will not meet this problem.

2. The proposed bill is predicated on the assumption that a door-closing device which can be easily opened from the inside will remedy this danger. This assumption, in our opinion, is unwarranted by the facts as we know them.

With respect to our first reason, which is that the present problem concerns abandoned and discarded household refrigerators, I should point out that this bill, as were its predecessors, is aimed only at preventing the introduction in interstate commerce of such equipment unless provided with door-closing devices or latches which permit the door to be opened easily from the inside. This means, primarily, new equipment leaving the hands of the manufacturer. It also covers household refrigerators belonging to families who move across State lines to new communities. These also would be affected and, parenthetically, I might say that I am not at all sure that the sponsors of this legislation had this in mind. In any event, this bill covers new refrigerators destined for immediate sale and use, or refrigerators which are being used and may be shipped across State lines. It does not reach the abandoned and discarded refrigerator or icebox, which I think the record of these unfortunate incidents will show are the root and cause of our problem. I might say so far as I have been able to take in this morning, and I was here the whole time, there has been very little said about the relative size of the danger from both points of view.

There have been some incidents read into the record, newspaper clippings of recent accidents, but there is nothing so far as I know the fact which I believe to be the fact, that the great majority of these accidents are the abandoned or discarded boxes.

As a prior witness has already stated, there are hundreds of thousands of these abandoned and discarded iceboxes and refrigerators in cellars and on back porches, and on the thousands of junk heaps throughout the Nation.

Approximately 2 million to 3 million are being abandoned or discarded each year and for the next 10 to 15 years the refrigerators and iceboxes in use today will continue to be discarded and abandoned and the present peril will grow in dimension. The present legislation, however, cannot reach them.

With respect to my second basis for opposing this legislation, it is the strong feeling of those who are in a position to know that inside latches or door-closing devices which permit the door to be opened easily from the inside are not the answer to this problem.

This is because the ones who are drawn to these attractive nuisances, and that is what these abandoned and discarded iceboxes and refrigerators really are, are children ranging in age from 2 to 12 with the great bulk averaging 3 to 5 years.

It is common knowledge that children, as well as many adults, confined in utter darkness in a closely confined container, are particularly subject to panic. It is too much to expect them, under such circumstances, to have the knowledge, strength, or ability to locate or operate such a device. We submit that the proposed legislation is based on

the assumption that these inside devices will be effective. We believe that such an assumption is contrary to common experience.

For both these reasons, namely:

(1) the proposed bills do not meet the peril as it presently exists and will continue to exist for many years to come; and

(2) the means and method are not adequate; it is our strong belief that these bills are not sound and should be defeated.

We are all agreed that these abandoned and discarded iceboxes are an existing peril which will continue to exist as 2 million to 3 million more iceboxes and refrigerators are abandoned or discarded each year, as has been pointed out, this will probably grow.

What, if anything, can be done to prevent this needless loss of life? I agree that the remedy, as other witnesses have suggested, lies in two main directions. These are:

1. A widespread continuous educational program to alert the public, and particularly the children, concerning this danger. You have already heard and will hear from other witnesses as to the participation of NEMA, RSES, REWA, and the National Safety Council in this nationwide effort. Our own organization, in addition to sponsoring an industrywide meeting of groups and associations concerned with this problem, has conducted its own publicity campaign. Witnesses last year testified as to this nationwide effort that was being made at that time, and I can say is still being made. During the year 1953 alone, news releases were sent to all newspapers throughout the country in cities having a population of 50,000 or more. In addition, similar announcements were sent to 583 radio stations throughout the country, and 400,000 safety stickers have been distributed for use by industry groups. This is a very small part of it.

Second, passage of State and local ordinances making it a criminal offense to discard or abandon this equipment without scrapping it or removing the doors, lids, or hinges. ARI has sponsored model legislation to this effect. According to our information, approximately 40 States and more than a hundred cities have adopted this type of legislation. Last year at the time we appeared approximately 18 States had adopted such legislation, and now approximately 40 States have such legislation.

In other words, more than 20 States have acted within the past year, and it is not too much to expect that soon all 48 States will have enacted such legislation.

Gentlemen, finally I submit that it is only by education and by legislation on the State and local level that this peril can be met. This has been the experience in the case of even a larger peril, that is, automobile accidents, which in 1953 alone accounted for over 38,000 deaths, according to the figures of the National Safety Council. I think we would all agree that many of these automobile accidents are caused by speeding and too much speed. I think we are all agreed that it is perfectly feasible to pass a law putting governors on automobiles, and I imagine that suggestion has been made to the Congress a good many times. There has been much agitation to persuade Congress to pass laws to meet this grave problem. Yet Congress has wisely decided that highway safety cannot be obtained by merely passing a law, and that such should be left to public education and to State and local regulation.

It seems to us that the immediate problem before this committee, which took the lives of approximately 80 children over the past 6 years, is best met in the same manner. Because the proposed legislation is defective as to coverage and inadequate as to method, and because the problem seems only capable of being met by these other means, we strongly urge this committee to make an adverse report on H. R. 2181.

Mr. CARLYLE. Mr. Pratt, you do not think that there is enough importance to the number of suffocations that have taken place to give serious consideration to having someway from which children could get out of these refrigerators in the event they are trapped?

Mr. PRATT. Yes, and I think a single suffocation is sufficient for this commitee to lend its serious attention to meet such a problem.

Mr. CARLYLE. This committee is not necessarily interested in the hearings. We are interested in accomplishing something that might be the means of saving some lives. Are there any questions?

Mr. ROBERTS. I note the gentleman's reference to these publicity campaigns. I do not think the gentleman would seriously try to tell us that these campaigns constitute an answer to this problem at all.

Mr. PRATT. I do not think that there is any complete answer to this problem, Mr. Roberts.

Mr. ROBERTS. I agree with you there, but do you not think that there is an effort that can be made? You certainly do not think that this great industry and this great American manufacturing group is at a complete loss as far as finding the answer to this, and not after you listened to these gentleman over here.

Mr. PRATT. You have had testimony from these gentleman who are certainly in a better position than I am to know. They have testified, as I understood their testimony, that an answer is inevitable, and they have not come up with it yet. What the law would do would be to prevent from shipping in interstate commerce a product which they themselves by their own testimony do not have the kind of safety device and they can conscientiously recommend to the public. I think that is unsound.

Mr. ROBERTS. If I understood their testimony, or at least perhaps I was wanting to hear this, but I got the impression that they are pretty close to finding something that in the majority of cases would be the answer.

Mr. PRATT. I remember Mr. Heselton asked the question as to what the time would be, and I think the answer was they just do not know.

Mr. ROBERTS. Well, certainly there is no question but what one manufacturer is already in production with a safety device, a magnetic closing device, that can be handled even by a small child.

Mr. PRATT. I do not think that there is any testimony in the record other than the fact that GE has a wall-type device that uses the magnetic means, and what the inside pressure is that is required, I haven't been able to find it in the record. It is just another kind of a door closure. Perhaps we ought to ask one of them what this thing actually does. I am sure that if GE thought it was feasible, they would put it on all of their boxes.

Mr. ROBERTS. If I understand correctly, and I say this with the privilege of taking it out of the record if I am incorrect, but I understood that GE built a large number of refrigerators with these Alnico closures, prior to the Korean incident. However since these required

nickel and aluminum, that they were not able to get those materials they did manufacture a sizable number. I do not know what number they did. Do any of you gentlemen know the answer to that?

Mr. BENSON. I believe Mr. Timmerman, who testified at the prior hearings, said it was 100,000 that were in use at that time, and that was, I believe, a 2-door very deluxe model of their refrigerator. Now, this present one we have no information on except having seen it advertised, or at least I have no knowledge on it. It is somewhat similar type of closure. I understand that they have not expanded the application of that to their other lines.

Mr. ROBERTS. They must have been pretty well convinced to make 100,000 of them, don't you think?

Mr. BENSON. Perhaps they were.

Mr. DIES. What I was going to suggest, Mr. Chairman, was that we have to go over to the House, and I wanted to ask this question: These gentlemen should get together and agree upon what they think is the most practical device, and not with a view of having anything that is absolutely safe. We all put safety belts on when we are in an airplane in landing and taking off. No one pretends that that is going to save everybody's life, but it will help. Now they are going to put it in cars. Then, if you agree on something like the device you were speaking of, which is that when the machine is not in operation the door cannot be closed, I think that would be a tremendous help. From what I have read of these accidents, most of them have occurred when the refrigerators were open and the door was open and it was being defrosted, or when some abandoned refrigerator was there. That is not going to take care of every situation. There will be a frequent accident.

But suppose you agree as an industry that that is the best and most economical and the most practicable thing to do. Then we simply could amend this bill and say "On all refrigerators a device shall be installed which when the refrigerator is not in use, the door cannot be closed." Then you are protected because the legislation requires you to install that, and you are not the warrantor or the guarantor of the safety of the device. You simply comply with the law. That is all.

Mr. CARLYLE. Mr. Pratt, you made a very strong statement.

Mr. HESELTON. I think this may be unfair to you. If it is, do not hesitate to tell me so. But I have been impressed by this fact: I am a little confused as to these various organizations. You represent the Air-Conditioning and Refrigeration Institute, and the other gentlemen represent the National Electrical Manufacturers Association, and I suppose, and I do not mean this invidiously at all, there is some duplication.

Mr. PRATT. There is an overlap of membership, and there is a separation on the basis of products.

Mr. HESELTON. I assumed that would be true.

I notice there is another group called the Refrigerator Services Engineers Society. Is that a third group not associated with either of these two groups?

Mr. PRATT. That is so.

Mr. HESELTON. They have recommended some model State legislation?

Mr. PRATT. Yes, sir.

Mr. HESELTON. As far as I can determine from reading the bulletin, they have not addressed themselves to any model Federal legislation primarily because they do not think any Federal legislation is necessary. Is that right?

Mr. PRATT. I think they believe that the Federal approach is not the way to do it. They testified, I think, last year.

Mr. HESELTON. This is something that probably should have been addressed to the gentleman who testified previously, and if they want to testify again, they can do so.

The basic problem, after listening to the testimony this morning, as I see it, deals with what we all call iceboxes. Those are the articles where these poor youngsters have lost their lives. An icebox, as I understand it, has very little trade-in value, and consequently whoever has it has to get rid of it and he puts it on the back porch or on the dump. When you look at this sort of thing, I cannot visualize that a refrigerator is going to suffer the same fate in the immediate future. It is going to have some trade-in value, and it will be taken care of, presumably. But on the other hand, if any of them get out on the dump, they are going to be even more attractive nuisances than an icebox with that lever on it and that sort of thing.

Mr. PRATT. I think that you are right.

Mr. HESELTON. We are confronted not solely with this problem of what has happened as to iceboxes but what may happen in the foreseeable future, as far as we are concerned, as to new refrigerators.

Mr. PRATT. As any of these boxes become abandoned, you have the problem thrust right in your lap. Now, if that is a new box, presumably it has a 10-year life, and maybe longer, and at that time it would be abandoned.

Mr. HESELTON. I assume that this bill would reach something like 85 percent of the refrigerators that go in interstate commerce.

Mr. PRATT. At least that, the new sales are interstate sales.

Mr. HESELTON. I hope without violating any antitrust laws, you can get together on that.

Mr. CARLYLE. Let me make this observation. There is one witness here, Mr. Oeschle, Deputy Assistant Secretary for Domestic Affairs of the Department of Commerce. I am just wondering when it would be a good time for us to have a short hearing. Could you be with us in the morning for just a few minutes?

Mr. OESCHLE. Yes, sir.

Mr. DIES. If we agree on a procedure, we ought to have these gentlemen confer on this problem and we ought to notify them what our decision is.

Mr. CARLYLE. That can be done. But in order that we might complete our record, I wonder if we could have a hearing in the morning at 10 o'clock?

Mr. OESCHLE. We have a prepared statement and we will just submit it for the record.

Mr. CARLYLE. I think it would be better for you to appear.

We will recess at this time until 10 o'clock in the morning.

(Whereupon the subcommittee adjourned at 12:15 p. m.)

SAFETY DEVICES ON HOUSEHOLD REFRIGERATORS

THURSDAY, JULY 21, 1955

HOUSE OF REPRESENTATIVES,
SPECIAL SUBCOMMITTEE OF THE COMMITTEE ON
INTERSTATE AND FOREIGN COMMERCE,
Washington, D. C.

The subcommittee met at 10 a .m., Hon. F. Ertel Carlyle (chairman of the special subcommittee) presiding.

Mr. CARLYLE. The committee will be in order, please.

May I say to the members of the committee that Mr. Heselton cannot attend the first part of the meeting this morning but he intends to come in a little later. Mr. Hoffman, I think, will be unable to be here this morning.

The first witness, so far as I know, the only witness, is Mr. Carl F. Oeschle, Deputy Assistant Secretary for Domestic Affairs, Department of Commerce. Do you have a prepared statement, Mr. Oeschle?

STATEMENT OF CARL F. OESCHLE, DEPUTY ASSISTANT SECRETARY FOR DOMESTIC AFFAIRS, DEPARTMENT OF COMMERCE

Mr. OESCHLE. Yes, Mr. Chairman; I have a statement which I would like to read if I may.

For the record, my name is Carl F. Oeschle, and I am Deputy Assistant Secretary for Domestic Affairs of the Department of Commerce. I am appearing before your committee this morning on behalf of the Department of Commerce to comment on H. R. 2181, introduced by Congressman Roberts.

This bill provides that no household refrigerator may be introduced into interstate commerce unless it is equipped with a door-closing device which enables the door to be opened easily from the inside. Motivation for the introduction of the bill is the occurrence during recent years of a number of deaths of children by suffocation in abandoned refrigerators.

The Department of Commerce recommends against the passage of H. R. 2181 for the following reasons:

First, the bill does not provide an adequate solution to the problem since the problem is concerned with abandoned refrigerators, primarily, not new refrigerators. The average life of a refrigerator is approximately 15 years. This means, generally speaking, that not until 15 years after the passage of such a bill would it begin to contribute to a solution of the problem.

Second, the bill requires a device which allows a door to be opened "easily" from the inside. We believe the use of the word "easily" is

insufficient to establish adequate standards as to the degree of pressure to which a refrigerator door must yield from the inside.

Third, while the objection just mentioned appears to pertain to the technical draftsmanship of the bill, the problem raised is one of substance. To insure proper operation of the refrigerator a certain number of pounds pressure is needed to effect a seal between the door and the box. An opening device likewise requires pressure. We are not aware of any device which has been adequately proved as providing a proper seal while at the same time allowing the door to be opened by a child from the inside.

Fourth, a good portion of the hazard of abandoned boxes consists of leaving them with the door uppermost—this is true of either chest-type boxes or conventional horizontal boxes—so that the weight of the door is, in these cases, as much a source of danger to a small child as the lack of a simple and effective opening device.

Fifth, it also appears that a householder or mover transporting household goods from one State to another would be in technical violation of the law unless any refrigerators so carried were equipped with the required device.

Sixth, the bill fails to define "household refrigerators." One of the principal questions arising from this lack of definition is whether the term includes home freezers.

We concur in the position taken by the Senate in Senate Resolution 272 at the close of the last session. In that resolution the Senate, after hearings, concluded that an adequate device for this purpose was not available and commended the actions taken by the several States in an effort to avoid future fatalities. We believe that the conditions which obtained at the time this resolution was passed still prevail and that enactment of legislation such as is here proposed could induce carelessness by creating the impression that all dangers had been eliminated.

At this time, the solution lies in the continued efforts by States, localities, and parents to eliminate the hazards and to educate children to avoid them.

So much for the prepared statement.

Now, I also have another statement which I think might be of interest to the committee. I was in attendance at the hearings here yesterday and I became interested, and I believe the committee would be interested in examining some figures on accidental deaths in this country, and I will give the number of deaths and the cause of death: 36,000 by motor-vehicle accidents; 19,900 from falls; 6,300 fire burns and related causes; 6,200 drownings; 2,700 railroad accidents; 2,200 firearms; 1,400 poisons, solid or liquid; 1,300 poison gases; 15,200 all other types.

With respect to children, aged 1 to 14, accidents kill more children than any disease. In 1952, the latest available figures, 14,851 in this age group died of accidents: 4,246 from motor-vehicle accidents, 647 from falls, 2,104 from burns, 2,086 from drownings, 208 from railroad accidents, 519 from firearms, 100 from poison gases, and 462 from poisons other than gas.

Accidental poisoning is one of the principal causes of death among children under 5 years of age. Drugs accounted for 35 percent of these deaths; the most common drug killer being aspirin (and the

salicylates) with barbiturates next, both of which are commonly found in the family medicine cabinet.

Let it be clearly understood that I, like the members of this committee, am anxious to prevent any deaths of children. I have four grandchildren of my own and if this proposal were feasible and effective, I would favor it rather than oppose it.

This proposal would impose what is now in effect, an unknown and unclear condition on commerce in refrigerators. A mere description of any such mechanism and its purpose may render the maker liable in the event of failure years after production when the refrigerator is abandoned.

Now, I would also like to make this observation, having children of my own and four grandchildren.

I think we all recognize there is a little bit of the animal in children up to 10 years of age and I think some of the deaths have been occasioned by children being pushed into refrigerators, because of one child pushing another child into the refrigerator and closing the door and walking away. That has happened in automobile trucks, abandoned cars, and other vehicles.

I have seen my own grandchild, a little boy of 5 years old, push his 3-year-old sister into a clothes closet and walk away, leaving her inside the closet screaming. That often happens around the home. It could well happen in a refrigerator or any other type of household appliance.

I have seen this refrigerator over here in the room and while in that particular make of refrigerator with that type of shelf, it works. Many of the modern refrigerators today have sliding doors, some of them have circular mechanisms inside and in trying to pin a gadget of that type down to all refrigerators, it would result, I think, in tying down progress in the refrigeration field.

Mr. ROBERTS. When the gentleman concludes, I want to develop one point.

Mr. OESCHLE. Yes.

Mr. CARLYLE. Have you concluded?

Mr. OESCHLE. Yes; I have finished.

Mr. ROBERTS. On that point the bill does not tie down the law to any particular device.

Mr. OESCHLE. I realize that.

Mr. ROBERTS. So that part of your testimony is certainly not pertinent to the bill.

Mr. OESCHLE. Except that on two occasions last year and this year when I came up to testify on both occasions I have found a refrigerator present in the room with some kind of a gadget on it, and I assume that it was supposed to solve this problem.

Mr. ROBERTS. I might say in that connection that anyone who has a device that he wanted to demonstrate would be welcomed by the chairman.

Mr. OESCHLE. I realize that.

Mr. ROBERTS. There has been no effort, so far as I know, to tie it down to any particular invention. Mr. Moorehouse has been interested in this for some time and he was kind enough and good enough to bring his invention over for the committee to see. There has been no secret about it here.

Mr. OESCHLE. I understand.

Mr. ROBERTS. So that if anyone has a device that they want to demonstrate, I am sure the chairman would welcome his coming here.

Mr. CARLYLE. Mr. Oeschle, why is there no refrigerator now being manufactured in this country with such an appliance as has been discussed in these hearings?

Mr. OESCHLE. I do not know of one that is available in the common household-type of refrigerator. In hearing the testimony yesterday and talking with our people in the Department, the Consumer Goods Division and the representatives who are responsible for the refrigerator contracts with manufactures, I understand that General Electric did make one at one time but I think yesterday the statement was made that approximately 100,000 had been sold of a particular type, but they do not seem to be quite in the area where most of the accidents have happened.

Mr. CARLYLE. Mr. Dies.

Mr. DIES. I suggested yesterday that the manufacturers or the representatives of the manufacturers confer with the Bureau of Standards and see if they could come up with some economical and simple device that would promote safety.

Mr. OESCHLE. We would be very happy to have the Bureau of Standards, and to cooperate with them in any way.

Mr. DIES. It has got to be economical; you cannot put an expensive device on them.

Mr. OESCHLE. That is right.

Mr. DIES. And it would have to be something that will be practical. And there is no way in the world that you can come up with a device that is going to be foolproof.

Mr. OESCHLE. That is right.

Mr. DIES. Somebody somewhere is going to get shut in, in spite of the device.

Mr. OESCHLE. Yes.

Mr. DIES. What Mr. Roberts is trying to do here is to reduce to the lowest minimum—he realizes and we all realize that you are not going to prevent all accidents; somebody is going to be killed in automobiles, for instance.

Mr. OESCHLE. Yes.

Mr. DIES. I do not suppose there is anyone on earth who could put a safety device on an automobile that will prevent all accidents.

Mr. OESCHLE. Speaking of automobiles, Mr. Chairman, a very close friend of mine last year, in driving from one point to another, a man who was a grandfather, a fine man, was driving along the road and a car came toward him and the door opened and a 2-year-old child fell out of that automobile, right in front of this man and there was nothing in the world he could do about it.

Mr. DIES. A very good friend of mine ran over his own child.

Mr. OESCHLE. We all know those things happen.

Mr. DIES. But the thought is this, that Mr. Roberts did not have any pride of authorship in this; we have got this thing before us and what he is trying to do is to call attention to this hazard, and to bring about some way that will reduce the hazards and the accidents to the minimum.

Mr. OESCHLE. Yes, absolutely.

Mr. DIES. And if it does not do anything else but alleviate the fears of the mothers and the fathers, that will help. Every time one

of these things happens, it frightens literally thousands upon thousands of parents.

Mr. OESCHLE. And every time you see an account of one in the paper, it becomes more terrifying.

Mr. DIES. It is such a horrible thing.

Mr. OESCHLE. Yes.

Mr. DIES. Now, if you gentlemen can get together with the gentlemen in the Department of Commerce and the Bureau of Standards and come up with what, under the circumstances, is the most feasible, economical, and simple arrangement, then a bill could be formulated; this bill of Mr. Roberts could be amended so that it could set forth what is wanted. The manufacturers would not be the warrantors or the guarantors. The principal opposition to this bill is that it now provides that all refrigerators manufactured should have a device—and if it were not in operation the door would not open. It would be easy for the manufacturer to have certain warrants that the device would not accomplish some purposes, and he would be no more responsible, or no more liable, if the piece became broken than he would be liable for the breaking of a mechanical device on any machine.

Mr. OESCHLE. On the other hand, Congressman, in this dynamic period of economic development, manufacturers are constantly bringing out new methods of refrigeration.

Mr. DIES. That is right.

Mr. OESCHLE. And the refrigerators of 10 years ago are not at all like the refrigerators of today; the same thing is true with deep freezers. And to try to pin down a group of manufacturers to a certain type of product that they are making today and say that they have got to put such and such a type of gadget on that from now on—to a degree it might have something to do with the development of the industry itself.

Mr. DIES. Well, let us see if they cannot come up with something.

Mr. OESCHLE. I think in their testimony yesterday, they all stated that they are well aware of the problem; that they are trying, they are working in their research laboratories and everyone of the men who are working on it have children and grandchildren.

We all realize there is a hazard, just as in the case of the plastic swimming pool. We had a case not long ago in my home town where there was a plastic swimming pool out in the backyard, where a little child fell into it and drowned. Now, what could you say; stop selling plastic swimming pools?

Mr. ROBERTS. We had the same problem with reference to torch sweaters; you will recall we had pretty much the same situation.

Mr. OESCHLE. You are referring to the Inflammable Goods Act?

Mr. ROBERTS. Yes. Now, there is a similar proposition. Now, going back to the safety proposition, you take the safety glass on automobiles, yet people have had their heads cut off and injured and sometimes even killed with automobiles having safety glass on them.

Mr. OESCHLE. Yes.

Mr. ROBERTS. But that has not prevented the manufacturer wanting to put their little trademark on safety glass of the car, saying what it will do in a case of breakage. I remember when the first hydraulic brakes came out on automobiles and I am sure all of you gentlemen

do. And we do not contend, and I do not contend, that there is any foolproof, 100 percent safety device, effective device, that can be developed.

Mr. OESCHLE. No.

Mr. ROBERTS. But I do believe that the American ingenuity can produce something that will reduce this hazard to a minimum and that is all I seek to do.

Mr. OESCHLE. In dealing with children, you are still likely, when you have the gadget, you are still likely to run into cases where one child will push another child into a closet or into a box.

Mr. DIES. And some of them will even get killed.

Mr. OESCHLE. Yes; that has been done.

Mr. DIES. That is another thing. You cannot foresee all of those things.

Mr. OESCHLE. No.

Mr. DIES. But I think the industry could come up with some device that they themselves have recommended.

Mr. OESCHLE. If we can help the Bureau of Standards, that is what we are all interested in.

Mr. DIES. That is the reason for the suggestion.

Mr. OESCHLE. And I think it is a very good suggestion, I thought it was yesterday when I heard it.

Mr. DIES. That was my suggestion, that they get together and work on this thing and see what they can come up with.

Mr. OESCHLE. I sincerely do not believe that it is something you can legislate on at this time. It requires time for these men to work this thing out. I think they all appreciate the seriousness of the problem but I still say, even after it has been worked out, there are going to be certain hazards to contend with.

And in the meantime, you have got all of these 50 million boxes that are in existence, and in 15 years that are going to be abandoned. But there is another thing about the hazards that most of these deaths are deaths that occurred in the old iceboxes, which did not have very much of a salvage value. But at this time, the boom in our economy is such that anybody who has an old box today will not sell it to a junkyard, he will have it picked up because of its scrap value and you are not likely to see many of them laying around. And as a result of these running campaigns to tell the mothers and fathers when they are discarding a refrigerator, just take the door off, all they have to do is just to take a single screw out of the door and remove the door, and then that hazard has been removed. It can be done for the protection of their own children and the children of the neighborhood. And I think these campaigns that are being carried on can have a very excellent effect in stopping some of these deaths. There is no question about it in my mind.

Mr. CARLYLE. We have with us Mr. L. D. Price, and I wonder if you would like to make a statement to the committee?

Mr. ROBERTS. Just before that, I wonder if I might develop this further thought?

Mr. CARLYLE. Certainly, Mr. Roberts.

Mr. ROBERTS. Your opposition, as has been that of some of the other opponents, takes the position that this problem is almost solely the result of abandoned boxes. I have a group of news items that I have

been running through here and I find that in many instances that have been reported in the press, this problem is not confined to abandoned boxes. We have had many deaths from others.

Mr. OESCHLE. Oh, no. The picture that was shown yesterday was from an Alabama paper. That is an old GE refrigerator, with the big unit on the side; I noticed that.

Mr. ROBERTS. And then there was one in East St. Louis and another in Detroit, where the refrigerator was in use at that time.

Mr. OESCHLE. Is that the case where they had abandoned it, or left it in the garage, where children could play with it? Now, had they taken the door off, there would not have been that danger.

Mr. ROBERTS. I believe the one in Detroit was the case of a refrigerator where the wife had gone down and was doing some ironing and cleaning, and the children were there and the refrigerator was being used.

Now, so far as campaigns are concerned, I am all for them, but I do not think that they solve the whole problem.

Mr. Chairman, I would like to ask unanimous consent to put some of these articles in the record.

Mr. CARLYLE. Without objection, it is so ordered.

Mr. ROBERTS. It shows the problem that we are confronted with.

(The articles referred to follow:)

[The Headpressure, January–February 1954]

BOY, 9, DIES IN FREEZER

LA HABRA, CALIF., December 24.—A 9-year-old boy froze to death today in a home freezer his family had turned on to make ice for a Christmas party.

The body of Dennis Chaffin was found in the freezer by his 14-year-old sister, Shirley, about 4 hours after she had last seen him. Police said the boy had gouged deep holes in the freezer insulation, and had broken an inside locking hinge in his desperate efforts to escape.

The boy's father, Bernard Chaffin, told police the freezer had been out of use for several months and was turned on this morning.

Dennis apparently crawled inside while both his parents were away at work and was trapped when the lid snapped shut.

LOCKED IN TAVERN REFRIGERATOR, CALLS HELP BY CUTTING OFF BEER

ST. LOUIS, MO., January 12.—When Herbert Kempe couldn't get any beer from the taps in his tavern today he went downstairs and unlocked the refrigerator to see what the trouble was.

Out came a repairman going brrrrr.

Robert Moore, 3934A North 22d Street, the repairman, found himself locked in the large, walk-in cooler where he was working in the basement of the Imperial Bar, 10th and Pine Streets. The temperature was near freezing. He was in his shirtsleeves.

For 30 minutes he shouted and beat on the 6-inch walls. Then an inspiration. He cut off the flow of beer from the piped barrel inside, and waited, shivering. Upstairs, the beer ran out.

[From the Washington (D. C.) Evening Star, February 19, 1954]

PROWLER, 14, IS CAUGHT COLD, BUT ESCAPES DEATH IN ICEBOX

A noise combined with a police lieutenant's hunch saved the life of a 14-year-old housebreaker today.

The colored boy had crawled into a refrigerator to escape police and the door had locked behind him. Frost and icicles were beginning to form on his jacket when police found him.

Pvt. J. R. Maurer and Lt. George S. Eckels went to the Capitol View Market, 4920 Central Avenue NE., after an unidentified woman called police to say she had heard a noise inside the store.

The policemen searched for half an hour. They were about to leave when, on a hunch, Lieutenant Eckels opened the refrigerator door. The boy was huddled inside.

Lieutenant Eckels said the boy would have suffocated or frozen to death within a short time if he had not been discovered. The boy told police he saw them approach the store and crawled into the refrigerator, pulling the door shut behind him.

Police said the boy admitted six other housebreakings. They said he told them he was trying to get money to help his sister, a 21-year-old mother of 3 whose husband is serving a 2-to-6 year prison term for stabbing her. The boy said his sister is being put out of her apartment because she can't pay the rent.

He was held for action by juvenile authorities.

[From the Salt Lake (Utah) Tribune, April 15, 1954]

TWO UTAH GIRLS SUFFOCATE AT PLAY IN REFRIGERATOR—SKATES LEAD TO DEATHS AT HILL BASE

(Special to the Tribune)

HILL AIR FORCE BASE.—A pair of roller skates in the doorway of a vacant apartment led to discovery of the bodies of two young girls suffocated in a refrigerator Wednesday at 8:55 p. m.

The children, daughters of S. Sgt. and Mrs. Ray Mullis, were Joyce, 6, and Donna, 5.

They were missed Wednesday about 3 p. m. Three hours later their mother notified base police and an extensive search of this sprawling Air Force installation was launched.

Shortly before 9 p. m. Howard Ball, a neighbor of the victims, saw a pair of children's skates in the doorway of a vacant Wherry housing unit apartment.

SEES SWEATER

Looking inside, he noticed a sweater in the kitchen. With another neighbor, A1c Willie F. Weldon, Mr. Bell entered the kitchen to find the bodies in the upright refrigerator.

Shelves of the death trap had been removed. The children were sitting upright on the floor of the refrigerator. There was no definite evidence the children had attempted to fight free of the trap.

GIVE UP ATTEMPT

Attempts to revive the youngsters were abandoned after a physician said there was no hope for the tots.

The unit, one of several unoccupied on the base, was apparently unlocked.

Investigators theorized the children wandered in, opened the refrigerator, removed the shelves, climbed in, and closed the door.

[From the Washington Post and Times Herald, May 5, 1954]

DIE IN REFRIGERATOR

SAN JUAN, P. R., May 4 (AP).—Two little girls, aged 5 and 6, playing hide-and-seek in a vacant house, died of suffocation Sunday when they climbed inside a refrigerator and closed the door. The accident occurred at Juana Diaz, a small town in southern Puerto Rico.

[From the Courier-Journal, Louisville, Ky., May 20, 1954]

TWO GIRLS CLAIM STRANGERS PUT THEM IN ICEBOX

(Special to the Courier-Journal)

SCOTTSVILLE, KY., May 19.—Two small girls, imprisoned for 15 minutes yesterday in an electric refrigerator in their farm home near here, told Allen County officers three strangers locked them in the box.

The children, aged 5 and 7, are daughters of Mr. and Mrs. Earlie Lawrence Slaughter of the Amos community. The officers said they believed that the children would have smothered to death in another 15 minutes.

The officer said the youngsters told them that two men and a woman got out of the car, entered the house and enticed them into the refrigerator, then shut the door.

Deputy Sheriff E. B. McIntyre said last night he and Sheriff Arthur Hobdy suspect that the children locked themselves into the refrigerator.

But, he added, the investigation is being continued.

[From the Daily Standard, Celina, Ohio, June 1, 1954]

TALE OF A 4-YEAR-OLD

A 4-year-old boy went to Highland Park to visit his 3-year-old cousin. His aunt sent them out to play with the admonition not to leave the yard. For, you see, she's the worrying kind.

But, for boys of that age, yards are made to go out of prison walls may contain wily oldsters. But no genius has devised a fence to hold in boys of 3 and 4.

So the tots gleefully journeyed forth out of the yard and into the great forbidden world. Their little legs carried them all of the way to the porch of a clubhouse.

Now they had no business going onto that porch. Any lawyer could have told them that they were guilty of trespassing. But, if the boys knew it was wrong to go onto that porch, that only sharpened the need to explore it.

On this porch was an icebox. It's a very handy gadget for the club when they are having parties. They put their refreshments in it. But there was no party now. It stood empty and unused.

But count on boys to find a use for things other people are not using. The 4-year-old climbed inside. A cozy hiding place. The 3-year-old slammed shut the door and went about his business. Clearly his cousin didn't want to play with him anymore.

Other women would have let the children be at their play. But, as we said, auntie was the worrying kind. She had hardly turned the boys out to play until she was looking for them. She found her boy but no sign of her nephew.

So she had her boy take her to his cousin. Her heart stopped beating as she threw open the door. But there was her nephew smiling and happy. It had been a grand adventure.

Since auntie was the worrying kind, she called the doctor. He told her the boy was all right. But he said they were lucky the boy had not gotten scared in the dark and started to cry and struggle. He would have used up the oxygen and died.

So the 4-year old is not dead. He owes his life to two exceptional circumstances. One was that his aunt was the worrying kind and went looking for him much sooner than many women would have. The other is that he did not get scared and use up his oxygen.

But for these two fortunate circumstances he would be dead and the whole community would be up in arms about unused iceboxes being out where children can get at them. We think the county should be up in arms anyway.

Must we wait for a child to die here before we get alarmed? Seventy-six children have suffocated in this country in the last 6 years because adults were too careless and indifferent to check on their unused iceboxes.

Two children ages 3 and 4, suffocated in an unused refrigerator in Connecticut yesterday.

Everyone should take it upon himself to make certain he has no iceboxes out where children can get at them. But not everyone will. The hazard these thoughtless people create is a community concern. We have every right to organize a countrywide search for these childtraps.

And we owe it to our children to do it immediately.

[From the Washington Post and Times Herald, July 23, 1954]

FARM WIFE ENDS LIFE CRAWLING INTO ICEBOX

HILLSDALE, MICH., July 22 (AP).—A 59-year-old farmwife took her life last night by crawling into an icebox and pulling the door shut behind her.

Coroner Harley Brandon, who returned a suicide verdict, said Mrs. Clyde Phetteplace removed the food and shelves from the icebox before she crawled in. The woman's husband, Earl, who found the body could give police no reason for his wife's action.

[From the Washington Post and Times Herald, December 1, 1954]

YOUTH SAVED FROM DEATH IN FREEZER—POLICE ARREST BOY IN HOUSEBREAKING AT POULTRY STORE

A 16-year-old boy, saved from freezing to death after police found him hiding in a locked refrigerator compartment, was charged with housebreaking yesterday.

The youth was found by Second Precinct Pvts. Charles G. Gilmartin and David Paul after the arrest of the youth's 15-year-old companion and "lookout" outside the Fred Kolker poultry store, 1254 Fourth Street NW., at 5:05 a. m. yesterday.

Aided by Juvenile Squad Detectives Fred R. Miller and Herbert R. Koch, police launched a search of the interior of the delicatessen after they discovered two bars over a rear window had been sawed in two.

The last place checked by Gilmartin and Paul, a 3-foot-deep storage compartment under the meat display counter, turned up the shivering 16-year-old boy who had cut off his escape by pulling the outside, snap-lock shut, police said.

Miller and Koch said had the youth not been found he would have died within a few hours. They also charged the 15-year-old with housebreaking.

[From the Ohio State Journal, Columbus, Ohio, July 12, 1955]

BODIES OF 5-YEAR-OLDS TUMBLE TO GROUND WHEN DOOR IS OPENED—TWO BOYS DIE IN REFRIGERATOR—POLICE SAY "UNBELIEVABLE" IT'S ACCIDENT—BOX SAT IN REAR YARD OF HOME ON NORTH SIDE

Two 5-year-old North Side boys were found dead inside a small, apartment size refrigerator in the rear of 598 Harrison Avenue Monday evening, apparently victims of suffocation.

An immediate investigation was begun by Dr. Robert A. Evans, coroner, and homicide detectives. They said it was "almost unbelievable" the boys could have stuffed themselves in the 5-cubic-foot box.

Dead are Montros R. Parrish of 598 Harrison Avenue, foster son of Mr., and Mrs. Charles Parrish, and Ronald C. Porter of 411 Charles Street, son of Mr. and Mrs. Lloyd Reese.

Their bodies were discovered shortly after 6 p. m. by Emanuel Valentine, 44, of the Harrison Avenue address, owner of the refrigerator.

Valentine was arrested under a city ordinance, passed February 6, 1954, setting penalties for anybody who fails to remove a lock or closing device on a refrigerator abandoned or left unattended or accessible to children under 16.

Conviction carries a fine up to $300, a jail sentence up to 30 days, or both. Valentine was held in city prison in lieu of bond.

Valentine told investigators both bodies tumbled out of the small cubicle as he opened the door to check it before it was taken by movers to another apartment.

He said he had moved it to the rear yard of the home at 1 p. m., along with other furniture, preparatory to moving.

After moving it to the yard, Valentine said, he left the home for a short time. It was on his return that he decided to check the motor and then the inside of the refrigerator.

Mr. CARLYLE. I rather believe that the condition we are trying to prevent is getting worse. In the past 30 days, 5 children have lost their lives by being trapped in refrigerators; 5 in the past 30 days is a little too rapid.

Mr. OESCHLE. Do you have the background as to where they were?

Mr. CARLYLE. No. This information comes in the form of a telegram. I believe Mr. Moorehouse said he knew something about them.

Mr. MOOREHOUSE. This was a news item.

Mr. CARLYLE. A news item?

Mr. MOOREHOUSE. Yes.

Mr. CARLYLE. Did they all occur at one time?

Mr. MOOREHOUSE. Over a period of 30 days.

Mr. OESCHLE. Of course, Mr. Chairman, you have to remember this, that in the boom economy period we are in right now, when we are building new houses at the rate of a million or 1.2 million a year, and every one of those new houses has got a refrigerator in it, naturally you will have a resulting increase in the hazards. There is bound to be an increase to some degree.

Mr. CARLYLE. That is true.

Mr. ROBERTS. May I say this off the record?

(Off-the-record discussion.)

STATEMENT OF L. D. PRICE—Resumed

Mr. CARLYLE. I would like to ask Mr. Price 1 or 2 questions.

Mr. Price, you are connected with the electric refrigerator manufacturing industry?

Mr. PRICE. Yes.

Mr. CARLYLE. You have heard most of the witnesses testify who have been before the subcommittee.

Mr. PRICE. Yes.

Mr. CARLYLE. Would you be in a position to tell us what has been done recently in the way of protection being provided in the way of a device that could be used on the average commercial refrigerator, that would prevent these children from being trapped in them?

Mr. PRICE. Well, in the first place, Mr. Chairman, the problem is not quite as simple as it sounds.

The same device or the same type of device may not be applicable to all types of refrigerators or freezers. I think freezers must enter into this just as much as refrigerators.

We have had quite some discussion of the problem since we met with you yesterday. I am in no position to commit the industry, but I may say this, that we will be more than pleased, if we receive a request from your committee, to arrange for meetings with the Department of Commerce and with the Bureau of Standards to explore this problem.

And there is, I may add, considerable feeling, considerable optimism, let me say, that we may be able to come up with a solution which I think will be satisfactory to you gentlemen. In the event that that is accomplished, perhaps no legislation will be necessary.

Mr. CARLYLE. Let me ask you this: Why were the refrigerators that were being manufactured with this device or appliance, not put on the market?

Mr. PRICE. They have not been put on the market because the individual manufacturers were not certain in their own minds that they will provide what they consider to be adequate safety over a considerable period of time, considering the use and abuse that some of these refrigerators and freezers receive.

Mr. CARLYLE. I can appreciate the fact that if you can get a gadget that will work on a freezer that at the same time, it would seem it ought to work on a refrigerator system.

Mr. PRICE. Yes. You also have to take into account, sir, the varying sizes of refrigerators; as the size of the refrigerator, the weight and the size of the door, increases, you face a somewhat different problem than you do on a refrigerator of, say, anywhere from 6 to 9 cubic feet. I am certain there is a very definite feeling among engineers in the industry that the problem can be solved.

Mr. CARLYLE. I suspect the manufacturers have as good engineers as can be found in the country.

Mr. PRICE. That is correct.

Mr. CARLYLE. Any further questions?

Mr. ROBERTS. I was definitely encouraged by the statement that the gentleman makes, and I have the feeling and I am sure that the Chair and the other members of the committee feel that we are pretty close to a solution. I do not think anyone has said definitely that they have a device that will do it, but I would like to say that I am greatly encouraged by the statements that have been made this morning. I think we all understand it is a problem that we have got to meet and have got to find a solution to it. For my part, I would certainly like to see the suggestions that have been made followed up, and see you come back to the committee and tell us what you find as the result of what has been done.

Mr. DIES. I was going to make a motion, Mr. Chairman, if it is agreeable, that we request the industry to hold meetings and consultations with the Department of Commerce and the Bureau of Standards to see if they can agree upon some simple, practical device, and later we can get together and hear what they have to offer.

Mr. CARLYLE. Would you prefer to make that in executive session?

Mr. DIES. That is certainly O. K.

I will just defer my motion and then we can communicate with them after the committee acts on it.

Mr. CARLYLE. Gentlemen, so far as I know, we have heard from all of the witnesses. Is there anything else anyone wishes to add?

Mr. OESCHLE. Mr. Chairman, I would like to commend Mr. Roberts for introducing such a bill, because I think it certainly has alerted industry to the hazards that are facing industry and others, and I think they are all perfectly willing to face up to the fact that something should be done about it.

Mr. ROBERTS. Thank you.

Mr. CARLYLE. Mr. Moorehouse, is there anything you would like to add to what you said yesterday?

Mr. MOOREHOUSE. With reference to the various types and models of refrigerators, the variation between all of these refrigerators and all of the problems involved, become very simple. When the refrigerator door is closed, the more weight on the door—there is more weight on the door than there is in the refrigerator itself .

The pressure that we talk about all the time—this closure will take care of any type of door, weight, or size, and give as much protection to young children, to the children who are too young to understand pressure, or their parents' conversation, and sometimes, somewhere, they will get into a refrigerator when their parents are not watching.

Mr. CARLYLE. Thank you very much, gentlemen, for coming.

Mr. ROBERTS. Mr. Chairman, I have a picture here of a General Electric refrigerator-freezer unit the wall type, and I would like to get as much of this in the record as I can.

Mr. CARLYLE. Without objection, it is so ordered.

Mr. ROBERTS. Thank you.

Mr. CARLYLE. We appreciate you gentlemen coming out and giving us the benefit of your experience and views.

Mr. PRICE. May I add this one other thought, Mr. Chairman. There is one thing that I think we ought to be certain about. That in the development of these items, we want to be quite certain that we do not, in any way, stifle the progress in industrial development.

Mr. ROBERTS. We want you to do it, and we would much rather you do the job voluntarily. I think everybody in the country realizes the importance of good public relations. The rate at which you sell and the volume of business you do, depends in large measure on the goodwill of the public. We simply believe that the time has come to do this job and that the country wants it done.

Mr. CARLYLE. Thank you very much, Mr. Price; we appreciate your statement.

Mr. PRICE. Thank you.

(The exhibit submitted by Mr. Roberts of the new General Electric refrigerator-freezer unit has been placed in the committee files.)

Mr. CARLYLE. If there is nothing further, the hearings are concluded.

(Thereupon, at 10:45 a. m., the subcommittee adjourned.)

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